PHILOSOPHICAL TRANSACTIONS.

VII. *Contributions to Terrestrial Magnetism.—No. VI.*

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§ 10. *Observations made on Board Her Majesty's Ships Erebus and Terror, from June* 1841 *to August* 1842, *in the Antarctic Expedition under the command of Captain Sir* JAMES CLARK ROSS, *R.N., F.R.S.*

I HAVE now to lay before the Royal Society the results of the Magnetic Observations made at sea by the Antarctic Expedition during the second year of its operations in the southern hemisphere. Leaving Hobarton early in July 1841, the ships proceeded in the first instance to Sydney in Australia, and from thence to the Bay of Islands in New Zealand, where they remained until the return of the season of navigation in the high latitudes. Quitting New Zealand in November, the ice was met with and entered in a somewhat lower latitude than in the preceding year, and in a longitude considerably to the east of the former track. The obstacles which the ice presented to their progress appear to have been greater than on the former occasion; they were however surmounted, and in February 1842 the ships again reached the ice barrier, or glacier, in latitude 78°, by which they had been stopped in the preceding year. After an unsuccessful endeavour to turn the eastern extremity of the glacier, the advance of the season compelled their return to the lower latitudes; they quitted the Antarctic Circle in March 1842, and keeping nearly in the 60th parallel, crossed the whole breadth of the southern Pacific Ocean to the Falkland Islands, where they arrived in April.

I proceed at once to the examination in detail of the magnetic observations made during this period.

Deductions of the Constants a and b in the Corrections for the Ship's attraction.

1. *In the Erebus.*—For the constants a and b to be employed in computing the corrections of the declination, we have the observations on each of the 32 principal points of the compass at Hobarton, in October 1840 and June 1841. We have also a similar series at Port Louis, in the Falkland Islands, in August 1842. The observations at Hobarton have been already discussed in No. V.* Those at Port Louis were as follows:—

August 19, 1842.

Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.
N.	+0° 12′·7	W.	−2° 15′·8	S.	+0° 00′·1	E.	+2° 07′·4
N. by W.	−0 04·1	W. by S.	−2 21·2	S. by E.	+0 43·9	E. by N.	+1 54·0
N.N.W.	−0 33·6	W.S.W.	−2 21·3	S.S.E.	+1 12·7	E.N.E.	+1 44·0
N.W. by N.	−0 50·1	S.W. by W.	−2 4·3	S.E. by S.	+1 41·4	N.E. by E.	+1 16·5
N.W.	−1 02·3	S.W.	−1 8·0	S.E.	+1 55·5	N.E.	+0 50·9
N.W. by W.	−1 00·6	S.W. by S.	−1 3·3	S.E. by E.	+2 06·9	N.E. by N.	+0 40·5
W.N.W.	−1 49·3	S.S.W.	−1 17·3	E.S.E.	+2 18·9	N.N.E.	+0 41·2
W. by N.	−2 09·6	S. by W.	−0 38·6	E. by S.	+2 16·4	N. by E.	+0 27·7

The values of the constants deduced from the observations at Hobarton were, $a=+\cdot0272$; $b=+\cdot986$. The values from the observations at the Falkland Islands are, $a=+\cdot0292$; $b=+\cdot984$.

The values of a at Hobarton were derived from two series, one in October 1840, when the ship had recently passed through the low magnetic latitudes, and the other in June 1841, on her return from the highest magnetic latitudes of the southern hemisphere; the two series separately considered give $a=+\cdot0235$ in 1840, and ·0309 in 1841; we have therefore the following values:—

+·0267 in the Thames, where the ship had been stationary for several years.

+·0235 at Hobarton, on her first arrival from the low latitudes.

+·0305 on her return to Hobarton from the very high southern magnetic latitudes.

+·0292 at the Falkland Islands in 1842, on her second return from the very high southern latitudes.

The variations in these values is in accordance with the view expressed in the preceding Number of these Contributions†, that when a ship changes her magnetic latitude, the corresponding change in the induced portion of her magnetism may not be instantaneous; that some portions of her iron may be of a quality intermediate between perfectly soft iron, which would undergo instantaneous change, and iron permanently magnetic; and that when changing rapidly her geographical position, she may be liable to be more or less in arrear, in regard to her magnetic condition, of her actual locality at any particular time. In a ship in which this should be the case, a table computed with any one value of a would not apply equally to one portion

* Philosophical Transactions, 1843, Part II. pp. 152–154. † Ibid. pp. 152, 153.

of her voyage in which she might be sailing from lower into higher inclinations, and to another portion in which she might be returning from higher into lower magnetic latitudes. The voyage under consideration comprised two such portions; and I have therefore employed two tables for the Erebus, one computed with ·0267 for the period when the ship was increasing the dip, and the other with ·0288 for the period when she was decreasing the dip. The differences are insignificant, except when the inclination is very high; the greater part of the declinations observed in the high dips were antecedent to the 1st of March 1842, when the ship commenced her return to the lower latitudes; for these the table computed with $a=·0267$ has been employed, and appears to answer better than the corrections computed either by the values resulting from the observations at Hobarton before the commencement, or by those at the Falkland Islands after the conclusion of the voyage.

2. *In the Terror.*—For the values of a and b in the Terror, we have observations on each of the thirty-two principal points of the compass at Hobarton in October 1840, and a second series in June 1841, as follows:—

Ship's head by compass.	Disturbance towards the west.			Ship's head by compass.	Disturbance towards the west.		
	1840.	1841.	Mean.		1840.	1841.	Mean.
N.	+0° 42′·4	−0° 52′	−0° 05′	S.	−0° 11′·6	−0° 55′	−0° 33′
N. by W.	−0 23·6	−0 52	−0 38	S. by E.	+0 52·4	−0 06	+0 23
N.N.W.	−1 20·6	−0 59	−1 10	S.S.E.	+1 56·4	+0 43	+1 20
N.W. by N.	−2 20·6	−0 03	−1 12	S.E. by S.	+2 38·4	+2 08	+2 23
N.W.	−3 25·6	−0 58	−2 12	S.E.	+3 19·4	+2 57	+3 08
N.W. by W.	−3 56·6	−2 12	−3 04	S.E. by E.	+4 00·4	+3 48	+3 54
W.N.W.	−4 01·6	−2 26	−3 14	E.S.E.	+4 43·4	+5 25	+4 54
W. by N.	−4 06·6	−2 51	−3 29	E. by S.	+4 28·4	+4 58	+4 43
W.	−4 36·6	−3 34	−4 06	E.	+4 24·4	+4 27	+4 26
W. by S.	−4 44·6	−3 43	−4 14	E. by N.	+4 11·4	+4 02	+4 07
W.S.W.	−4 52·6	−4 34	−4 43	E.N.E.	+4 07·4	+3 27	+3 47
S.W. by W.	−5 22·6	−4 01	−4 42	N.E. by E.	+3 27·4	+3 04	+3 16
S.W.	−4 23·6	−3 50	−4 07	N.E.	+3 02·4	+3 01	+3 02
S.W. by S.	−3 31·6	−4 22	−3 57	N.E. by N.	+2 37·4	+2 27	+2 32
S.S.W.	−2 03·6	−3 41	−2 52	N.N.E.	+2 11·4	+0 46	+1 29
S. by W.	−1 37·6	−2 44	−1 11	N. by E.	+1 26·4	−0 12	+0 37

We have also a series at Port Louis, in the Falkland Islands, in August 1842, as follows:—

Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.	Ship's head by compass.	Disturbance towards the west.
N.	+0° 19′	W.	−2° 30′	S.	−0° 16′	E.	+2° 46′
N. by W.	−0 02	W. by S.	−2 21	S. by E.	−0 08	E. by N.	+2 27
N.N.W.	−0 17	W.S.W.	−2 12	S.S.E.	0 00	E.N.E.	+1 58
N.W. by N.	−0 48	S.W. by W.	−2 21	S.E. by E.	+0 47	N.E. by E.	+1 39
N.W.	−1 19	S.W.	−1 33	S.E.	+1 35	N.E.	+1 13
N.W. by W.	−1 49	S.W. by S.	−1 05	S.E. by E.	+2 17	N.E. by N.	+1 11
W.N.W.	−1 47	S.S.W.	−0 47	E.S.E.	+3 04	N.N.E.	+0 34
W. by N.	−2 07	S. by W.	−0 45	E. by S.	+2 33	N. by E.	+0 27

From these observations we have the following values of the constants:—

Hobarton . . . . . $a=+\cdot0275$; $b=+\cdot979$
Falkland Islands . . . $a=+\cdot0293$; $b=+\cdot994$.

These values are nearly the same as those derived from the observations in the Erebus at the same periods, and appear to require no special remark; the same tables have been employed in the declination corrections of both ships during the voyage under notice; the values of the constants in these tables were as follows:—

$a=\cdot0267$ when the ships were sailing from the lower into the higher latitudes; $a=\cdot0288$ when sailing from the higher into the lower latitudes; $b=+\cdot984$ in both cases.

Deduction of the Corrections on account of the Ship's attraction for the Observations of Inclination.

1. *In the Erebus.*—The spot in the ship in which Mr. Fox's apparatus for the observations of inclination and intensity was employed, was a few feet in advance (towards the bow), and about two feet lower in height, than the position of the standard compass.

The values of a and b derived from the observations with the compass needle apply in strictness only to the spot in which that compass was stationed; it may be proper, therefore, before we employ them for the observations with Mr. Fox's apparatus, to show that nearly similar values for the constant a in particular (the more important constant) are deducible from the observations of inclination and intensity, independently of those made with the compass needle. For this purpose we may employ equation (1.), Phil. Trans., 1843, Part II. p. 147, viz.

$$\frac{\varphi'}{A'\varphi}\cos\theta'\cos\zeta'=\cos\theta\cos\zeta+a\sin\theta,$$

obtaining by its means the value of a from the observations of inclination and intensity made at Hobarton and Port Louis. As A' is known to differ very slightly, if at all, from unity, we have from equation (1.),

$$a\sin\theta=\frac{\varphi'}{\varphi}\cos\theta'\cos\zeta'-\cos\theta\cos\zeta.$$

φ and θ are furnished by the mean of the observations of inclination and intensity on the sixteen points of the compass, having approximate corrections applied to each of them; φ' and θ' by the (uncorrected) observations on the different points.

From the general aspect of the observations at both stations, we may conclude that the same symmetrical distribution of the iron existed in reference to the position of Mr. Fox's apparatus as in the case of the standard compass, and consequently that at the north and south points the value of ζ' and ζ coincided, being equal in the one case to 0°, and in the other to 180°. At Hobarton (in June 1841) we have $\varphi=1\cdot83$, $\theta=-70^\circ\,39'$; φ' at north $1\cdot812$, at south $1\cdot854$; θ' at north $-71^\circ\,56'$, at south $-69^\circ\,14'$:

Hence $\left.\begin{array}{l}\text{at north, } -\cdot944a=+\cdot307-\cdot331\\ \text{at south, } -\cdot944a=-\cdot359+\cdot331\end{array}\right\}$; whence $a=+\cdot0275$.

At Port Louis (August 1842) we have $\varphi=1\cdot32$; $\theta=-52^\circ\ 05'$; φ' at north $=1\cdot279$, at south $=1\cdot346$; θ' at north $=-52^\circ\ 50'$, at south $=-51^\circ\ 33$; hence

$$\left.\begin{array}{l}\text{at north, } -\cdot789a=+\cdot5920-\cdot615\\ \text{at south, } -\cdot788a=-\cdot6367+\cdot615\end{array}\right\}\text{; whence } a=+\cdot0310.$$

The accordance between these values and those deduced from the observations with the standard compass is fully sufficient to justify the inference that the effect of the ship's attraction was very nearly the same at the spot where Mr. Fox's apparatus was used, as at that at which the standard compass was fixed.

We may obtain c either by equation (11.), Phil. Trans., 1843, Part II. p. 148,

$$c\cos\zeta+d\tan\theta=\sqrt{(\cos\zeta+a\tan\theta)^2+b^2\sin^2\zeta}.\tan\theta';$$

or from the observations of inclination and intensity, independently of the values of a and b, by the equation

$$\frac{\varphi'}{\varphi}\sin\theta'=c\cos\theta\cos\zeta-d\sin\theta.$$

Confining ourselves to the north and south points, and to those points on either side of N. and S. from which c may be most advantageously derived, the observations at Hobarton give the following values to be employed in the equations:

N.	$\zeta'=0$;	$\zeta=0$;	$\theta'=-71^\circ\ 56'$;	$\varphi'=1\cdot812$.
N.N.E. N.N.W.	$\zeta'=22^\circ\ 30'$;	$\zeta=21^\circ\ 03'$;	$\theta'=-71^\circ\ 55'$;	$\varphi'=1\cdot812$.
N.E. N.W.	$\zeta'=45^\circ\ 0'$;	$\zeta=42^\circ\ 12'$;	$\theta'=-71^\circ\ 48'$;	$\varphi'=1\cdot816$.
S.E. S.W.	$\zeta'=135^\circ\ 0'$;	$\zeta=131^\circ\ 17'$;	$\theta'=-69^\circ\ 56'$;	$\varphi'=1\cdot847$.
S.S.E. S.S.W.	$\zeta'=157^\circ\ 30'$;	$\zeta=155^\circ\ 24'$;	$\theta'=-69^\circ\ 38'$;	$\varphi'=1\cdot850$.
S;	$\zeta'=180^\circ\ 0'$;	$\zeta=180^\circ\ 0'$;	$\theta'-69^\circ\ 14'$;	$\varphi'=1\cdot854$.
		$\theta=-70^\circ\ 39'$;	$\varphi=1\cdot83$.	

Substituting these values in the first of the above equations (11.), we have at

N.	$1\cdot000c-2\cdot85d=-2\cdot828$;
N.N.E. N.W.	$\cdot934c-2\cdot85d=-2\cdot832$;
N.E. N.W.	$\cdot741c-2\cdot85d=-2\cdot841$;
S.E. S.W.	$-\ \cdot660c-2\cdot85d=-2\cdot853$;

$$\left.\begin{matrix}\text{S.S.E.}\\ \text{S.S.W.}\end{matrix}\right\} -\cdot 909c-2\cdot 85d=-2\cdot 876;$$

$$\text{S.}\quad -1\cdot 000c-2\cdot 85d=-2\cdot 843.$$

Changing the signs of the three last equations, and summing, we have

$$5\cdot 24c=+\cdot 071;$$

$$\text{whence}\quad c=+\cdot 014.$$

To obtain c from the observations of inclination and intensity alone, we have at

$$\text{N.}\quad \cdot 331c-\cdot 94d=-\cdot 941;$$

$$\left.\begin{matrix}\text{N.N.E.}\\ \text{N.N.W.}\end{matrix}\right\} \cdot 309c-\cdot 94d=-\cdot 942;$$

$$\left.\begin{matrix}\text{N.E.}\\ \text{N.W.}\end{matrix}\right\} \cdot 222c-\cdot 94d=-\cdot 943;$$

$$\left.\begin{matrix}\text{S.E.}\\ \text{S.W.}\end{matrix}\right\} -\cdot 218c-\cdot 94d=-\cdot 948;$$

$$\left.\begin{matrix}\text{S.S.E.}\\ \text{S.S.W.}\end{matrix}\right\} -\cdot 301c-\cdot 94d=-\cdot 948;$$

$$\text{S.}\quad -\cdot 331c-\cdot 94d=-\cdot 947.$$

Changing the signs of the three last equations, and summing, d is eliminated as before, and

$$c=\frac{+\cdot 017}{1\cdot 71}=+\cdot 010.$$

From the observations at Port Louis, we have the following values to be employed in the equations:

$$\text{N.}\quad \zeta'=0;\quad \zeta=0;\quad \theta'=-52^\circ\ 50';\quad \varphi'=1\cdot 279;$$

$$\left.\begin{matrix}\text{N.N.E.}\\ \text{N.N.W.}\end{matrix}\right\} \zeta'=22^\circ\ 30';\ \zeta=22^\circ\ 01';\ \theta'=-52^\circ\ 42';\ \varphi'=1\cdot 290;$$

$$\left.\begin{matrix}\text{N.E.}\\ \text{N.W.}\end{matrix}\right\} \zeta'=45^\circ\ 0';\ \zeta=43^\circ\ 58';\ \theta'=-52^\circ\ 45';\ \varphi'=1\cdot 290;$$

$$\left.\begin{matrix}\text{S.E.}\\ \text{S.W.}\end{matrix}\right\} \zeta'=135^\circ\ 0';\ \zeta=133^\circ\ 03';\ \theta'=-51^\circ\ 59';\ \varphi'=1\cdot 323.$$

$$\left.\begin{matrix}\text{S.S.E.}\\ \text{S.S.W.}\end{matrix}\right\} \zeta'=157^\circ\ 30';\ \zeta=155^\circ\ 52';\ \theta'=-51^\circ\ 33';\ \varphi'=1\cdot 330.$$

$$\text{S.}\quad \zeta'=0;\quad \zeta=0;\quad \theta'=-51^\circ\ 43';\ \varphi'=1\cdot 346.$$

$$\theta=-52^\circ\ 05';\quad \varphi=1\cdot 32.$$

Substituting these values in equation (11.), we obtain

$$c=\frac{+\cdot 094}{5\cdot 24}=+\cdot 018;$$

or from the observations of inclination and intensity alone,

$$c=\frac{+\cdot 051}{3\cdot 22}=+\cdot 016.$$

The correspondence in the value of the constants obtained from the observations at Hobarton and Port Louis, being the commencing and concluding stations of the voyage now under consideration, is fully as good as could be desired; and a table formed from them has been employed for the correction of the observations made between Hobarton and the Bay of Islands, and during the return of the Expedition from the high latitudes to the Falkland Islands commencing with the 1st of March 1842. In those portions of the voyage the ship was passing from the higher to the lower magnetic latitudes, in which circumstance they corresponded with the observations at Hobarton and Port Louis, which were both made on the return from the vicinity of the magnetic pole. But if we attempt to apply the same table to the observations made under the reverse circumstances, namely, when the ship was passing from the lower to the higher latitudes (and such was the case with the greater part of the observations which we have to correct in the present voyage), we find that the tabular numbers, where the N. and S. points are approached, furnish a decided over compensation. On days when observations have been made at or near the N. and S. points, if we seek in the table for the corrections which should bring the results in accord with each other, we find that the corrections which will do so belong to a dip which is always some degrees less than the true terrestrial dip. It appeared desirable, therefore, if possible, to form a table for the correction of the observations of this portion of the voyage, derived from those observations themselves. Fortunately we have a better opportunity of doing this than might have been anticipated. The progress of the Expedition was so much impeded by ice in the early part of January 1842, that from the 6th to the 16th inclusive, the Erebus was the whole time between the latitudes of $-65^\circ\,54'$ and $-66^\circ\,14'$, and between the longitudes of $204^\circ\,33'$ and $202^\circ\,02'$; the weather and all other circumstances being favourable, the inclination was observed in the course of those eleven days with the ship's head on seventeen different points of the compass, sufficiently distributed, and particularly towards the north points and south points, where the effect of the ship's attraction is greatest, and is in opposite directions. From the observations at north and south it is not difficult to obtain an approximate value of a, which should bring the corrected results at those points into accord. The value thus obtained is about $+\cdot023$. I have collected the observations during the period referred to into the following table, taking, for the sake of simplicity, only those observations which were made by the *direct* method, which, however, comprises by far the greater part of the observations of that period. I have then computed the corrections, first, with the values of the constants, such as they are given by the observations made for their determination at Hobarton and the Falkland Islands (being the commencement and close of the voyage), viz. $a=+\cdot028$; $b=+\cdot984$; $c=+\cdot015$ and $d=1$; and second, with $a=+\cdot023$, b, c and d, as before; and have placed the two series of corrected results in the table, with columns showing in both cases the difference of the corrected result, on each point, from the mean result. A comparison of those columns seems conclusive in favour of the application

of the smaller value of a to those observations which were made when the ship was in progress from the lower to the higher latitudes. If a be taken as it was found at Hobarton and the Falkland Islands, not only are the differences generally greater, but they are systematically so; evidencing an over compensation where the north and south points are approached; whilst with the smaller value of a the differences are greatly diminished in amount, and exhibit no appearance whatsoever of system. They are such as may well be supposed to have been occasioned partly by observation error, and partly by small differences of geographical position in which the observations themselves were made.

Ship's head by compass.	Number of observations.	Inclination observed.	Values of the Constants. $a=+\cdot028$. $b=+\cdot984$; $c=+\cdot015$; $d=1$.			Values of the Constants. $a=+\cdot023$. $b=+\cdot984$; $c=+\cdot015$; $d=1$.		
			Computed corrections.	Inclinations corrected.	$\alpha-\beta$.	Computed corrections.	Inclinations corrected.	$\alpha-\beta$.
				β.			β.	
N.	1	−80° 58′	+1° 32′	−79° 26′	−20′	+1° 16′	−79° 42′	− 3′
N.N.E.	2	−81 00	+1 27	−79 33	−13	+1 12	−79 48	+ 3
N.E.	2	−80 42	+1 12	−79 30	−26	+1 00	−79 42	− 3
N.W.	3	−80 35	+1 12	−79 23	−23	+1 00	−79 35	−10
N.E. by E.	2	−80 50	+1 01	−79 49	+ 3	+0 55	−79 55	+10
W.	1	−79 58	+0 17	−79 41	− 5	+0 14	−79 44	− 1
E.	3	−79 50	+0 17	−79 33	−13	+0 14	−79 36	− 9
E. by S.	1	−79 45	−0 01	−79 46	−00	−0 01	−79 46	+ 1
S.W. by W.	3	−79 19	−0 38	−79 57	+11	−0 31	−79 50	+ 5
S.W. $\frac{3}{4}$ W.	1	−79 30	−0 42	−80 12	+26	−0 34	−80 04	+19
S.W. $\frac{1}{2}$ W.	1	−79 10	−0 46	−79 56	+10	−0 38	−79 48	+ 3
S.E.	1	−79 08	−0 55	−80 03	+17	−0 45	−79 53	+ 8
S.W.	3	−78 52	−0 55	−79 47	+ 1	−0 45	−79 37	− 8
S.W. $\frac{1}{2}$ S.	1	−78 48	−1 02	−79 50	+ 4	−0 50	−79 38	− 7
S.S.E.	3	−78 28	−1 13	−79 41	− 5	−1 05	−79 33	−12
S. by W.	3	−78 28	−1 29	−79 57	+11	−1 13	−79 41	− 2
S.	5	−78 32	−1 31	−80 03	+17	−1 14	−79 46	+ 1
Means	36	....	....	−79° 46′ = α		....	−79° 45′ = α	

The mean of the observations in the table thus corrected is −79° 45′; the corresponding geographical position is −66° 04′, and 203° 17′·5, if we take as such the middle point of the geographical space in which the ship was detained from the 6th to the 16th of January. The inclination observed on the ice on the 16th of January, in lat. −65° 49′, long. 202° 02′, with needles whose poles were reversed, was −79° 39′·5. We can derive no *precise* conclusion in regard to the value of d, from observations which are not identical in locality; but the accordance of the results obtained on board and on the ice, in geographical positions so little different, is quite sufficient to show that the error involved by assuming d as unity must be, at the utmost, very inconsiderable.

The tables for the correction of the inclination in the Erebus have therefore been computed with the following values for the constants, viz. from New Zealand to the end of February 1842, being the portion of the voyage in which the ship was in pro-

gress from the lower into the higher inclinations, $a=+\cdot023$, $b=+\cdot984$, $c=+\cdot015$ and $d=1$: and for the remainder of the voyage $a=+\cdot028$, b, c and d, as before.

In the Terror.—The place in which Mr. Fox's apparatus was used in the Terror was about the same distance from the position of the standard compass, and in the same direction, as in the Erebus. A series of observations were made with it for the purpose of furnishing materials for the determination of the constants, at Hobarton in June 1841, and at the Falkland Islands in August 1842; and the inclination was also observed with the ship's head on several points of the compass during the detention of the ships by the ice between the 6th and 16th of January 1842. In the case of the Erebus, we have found these latter observations of principal use in furnishing the values of the constants which apply to the greater part of the observations of the voyage; it may, therefore, be advisable to commence with the discussion of the corresponding series in the Terror.

Inclinations observed on board Her Majesty's ship Terror with needle F.C.B. used direct, during her detention by the ice from the 6th to the 16th of January 1842, between the latitudes of $-65°\ 45'$ and $-66°\ 20'$, and longitudes of $201°\ 46'$ and $204°\ 04'$.

Ship's head by compass.	Number of observations.	Inclination observed.	Ship's head by compass.	Number of observations.	Inclination observed.
		° ′			° ′
N.	4	−81 19·5	S.	6	−78 30
N. ½ E.	2	−81 14	S. ¾ W.	1	−78 21
N. ¾ E.	1	−80 50	S. by W.	1	−78 48
N.N.E.	3	−80 57	S.W.by W. ½W.	1	−78 50
N.E.	2	−80 48	S.W. by S.	3	−79 00
N.E. by E.	1	−80 26	S.W.	3	−79 08
E. ½ N.	1	−79 57	S.W. ½ W.	1	−79 08
E.	6	−79 55	S.W. by W.	5	−79 21
E. ½ S.	1	−79 45	W.S.W.	2	−79 37
E. by S.	1	−79 33	W. by S.	1	−80 05
E.S.E.	2	−79 21	W. ¼ S.	2	−80 07
S.E. by E. ½ E.	1	−79 04	N.W.	2	−81 09
S.S.E.	1	−78 42	N. by W.	1	−81 15
S. by E.	4	−78 37			

These observations manifest the general systematic character of the disturbance occasioned by the ship's attraction; they furnish indeed a remarkable example of the success with which the effect of the ship's iron on the inclination may be investigated by observations made at sea. The disturbance appears to have not been strictly symmetrical, inasmuch as the inclinations observed on the western points somewhat exceed in amount those observed on the corresponding eastern points; the same circumstance took place in the observations at Hobarton; but at the Falkland Islands, on the contrary, the inclinations observed on the eastern points were generally somewhat the higher. A similar occasional departure from strict symmetry has before been noticed in the effect of the ship's iron on the compass needle*; in that case also

* Philosophical Transactions, 1843, Part II. p. 152.

the disturbance in the same ship was sometimes greater on the eastern, and sometimes on the western points; these small irregularities, having no uniform character, are regarded as included amongst those varying accidents which are classed generally under the name of observation error. It is proper, however, in consequence of this occasional irregularity, that the data from which constants are to be derived for general corrections should consist of the mean of observations on corresponding points on the east and west sides of the compass; in this view we have as available observations in the preceding table those on the following points of the compass.

North	−81° 19′·5
N.W.	−80 58·5
N.E.	
W. ¼ S.	−79 58·5
E. ¼ S. (from E. and E. ½ S.)	
W. by S.	−79 49
E. by S.	
W.S.W.	−79 29
E.S.E.	
S.W.	−79 04·5
S.E. (from E.S.E. and S.S.E.)	
South	−78 30

We have here 2° 49′·5 for the difference between the inclinations observed with the ship's head north and south; the value of a which will give that amount for the sum of the corrections at north and south when the dip is between −79° and −80°, (neglecting c as too small in such case to require consideration), is about +·026. The observations at north were four in number,—those at south six, and on different days,—they were as follows:—

North.		South.	
January 8,	−81° 19′	January 7,	−78° 28′
8,	−81 20	8,	−78 31
8,	−81 18	11,	−78 28
13,	−81 21	13,	−78 25
		13,	−78 33
Mean	81 19·5	14,	−78 34
		Mean	78 30

From the accord which these observations respectively exhibit, it is clear that we should not be justified in taking a value of a which should differ much from +·026.

If we now refer to the observations which were made in the Terror soon after her arrival at the Falkland Islands, when the ship's head was placed on the principal points of the compass for the purpose of determining the values of the constants, we shall

find that a value of a taken near $+\cdot026$ will by no means bring the results on the N. and S. points, or on those approaching the N. and S. points, into accord; and that as we have already found in the dip corrections of the Erebus, and in the declination corrections of both ships, a considerably higher value of a is required for the observations on the return from the high latitudes, than for those when the ship was in progress from the lower to the higher dips.

We have no observations at the Falkland Islands (made at the spot in the ship where Mr. Fox's apparatus was used) either of the direction of the compass needle, or of the force acting on the horizontal needle: we must therefore obtain a and b directly from the observations of Inclination and Intensity. The observations gave as follows:—

Ship's head.	Inclination observed. $\theta=-51^\circ\ 56'$.		Intensity observed. $\varphi=1\cdot336$.	
	θ'		φ'	
N.	$-52^\circ\ 46'\cdot5$	$-52^\circ\ 46'\cdot5$	1·320	1·320
N.N.E.	$-52\ 51$	$-52\ 47$	1·315	1·314
N.N.W.	$-52\ 43$		1·313	
N.E.	$-52\ 47$	$-52\ 46$	1·314	1·313
N.W.	$-52\ 45$		1·312	
E.N.E.	$-52\ 52$	$-52\ 45$	1·336	1·322
W.N.W.	$-52\ 38$		1·308	
E.	$-52\ 31$	$-52\ 22$	1·336	1·330
W.	$-52\ 13$		1·324	
E.S.E.	$-52\ 16$	$-52\ 01$	1·355	1·350
W.S.W.	$-51\ 46$		1·345	
S.E.	$-51\ 32$	$-51\ 32$	1·370	1·364
S.W.	$-51\ 32$		1·359	
S.S.E.	$-51\ 09$	$-51\ 15$	1·368	1·367
S.S.W.	$-51\ 21$		1·366	
S.	$-50\ 53$	$-50\ 53$	1·370	1·370

For a, we have from equation (1.),

$$a\sin\theta=\frac{\varphi'}{\varphi}\cos\theta'\cos\zeta'-\cos\theta\cos\zeta,$$

whence we obtain, from the observations on the N. and S. points, $a=+\cdot0311$, and from those on the N.N.E. and N.N.W., S.S.E. and S.S.W. points, a also $=+\cdot0311$.

In the Erebus we have found a for the spot in the ship where Mr. Fox's apparatus was used $=+\cdot023$, from the observations made when the ship was in progress to the southward; and $=+\cdot029$ at Hobarton and the Falkland Islands. The corresponding values in the Terror are $+\cdot026$ and $+\cdot031$.

In the case of the Terror, therefore, I have employed separate tables for the corrections for the ship's attraction, viz. a taken as $+\cdot028$ in the passage from Hobarton to New Zealand; as $+\cdot026$ in the passage to the higher latitudes; and as $+\cdot031$ during the return from the high latitudes to the Falkland Islands.

For b and c, we obtain from the observations at the Falkland Islands as follows:—

In the case of b, we have from equation (2.),

$$b\cos\theta=\frac{\varphi'}{\varphi}\cos\theta'\sin\zeta'\operatorname{cosec}\zeta;$$

the observations at N.E., N.W., S.E. and S.W. give $b=+\cdot984$; those at E.N.E., W.N.W., E.S.E. and W.S.W., $b=\cdot984$; and those at E. and W. $b=\cdot982$.

In the case of c, we have from equation (3.),

$$\frac{\varphi'}{\varphi}\sin\theta'=c\cos\theta\cos\zeta+d\sin\theta;$$

from the observations at N. to N.E. and N.W. inclusive, and from S. to S.E. and S.W. inclusive, eliminating d, we have

$$c=+\cdot009.$$

The constant d is perhaps the most difficult of the constants to ascertain satisfactorily, as its value derivable from the observations depends on a knowledge of the true geographical dip at the place of observation, free from what is now known as *station error*. Experience has fully shown the general fact, that inclinations observed on land cannot safely be assumed as free from local disturbance. The discrepancies of gravitation at the Falkland Islands are well known from the experiments with the pendulum; and from the geological character of these islands, we might be prepared to expect the existence of magnetic discrepancies also. By the needles in both ships, the inclination was found a third of a degree higher at the magnetic observatory on shore than when observed on board in the harbour; if the observatory dip were to be assumed as an undisturbed one, we should obtain d in both ships considerably less than unity, whereas from the comparison of the observations in both ships in the preceding December and January, with the inclination observed at the same time on the ice over a deep sea, where no local attraction can be imagined to exist, we have d (as far as the small differences of geographical position will permit us to judge) differing scarcely, if at all, from unity in either ship. The preference is certainly due to the deduction from the results obtained on the ice. Taking therefore $d=1$, $c=+\cdot01$, $b=\cdot984$ and $a=+\cdot026$, we have the corrections, and the corrected inclination, of the observations in the Terror between the 6th and 16th of January as follows:

Ship's head.	No. of observations.	Inclination observed.	Correction.	Corrected Inclination.	
N.	4	−81° 19·5′	+1° 26′	−79° 53·5′	
N.W. N.E.	4	−80 58·5	+1 09	−79 49·5	
W. ¼ S. E. ¼ S.	9	−79 58·5	+0 12	−79 46·5	
W. by S. E. by S.		−79 49·0	−0 01	−79 50·0	−79° 52′·4
W.S.W. E.S.E.	4	−79 29·0	−0 17·5	−79 56·5	
S.W. S.E.	6	−79 04·5	−0 51·5	−79 56·0	
S.	6	−78 30·0	−1 24·5	−79 54·5	

Slight differences in the corrected results must be looked for, as the observations were not all taken precisely at the same geographical spot: those which appear in the table are, however, very slight; the accord produced by the corrections seems as

satisfactory as could be wished or expected; and I have accordingly taken the above stated values of *b*, *c*, and *d*, for the whole period under notice.

On a general review of the examination to which the observations in the Erebus and Terror in this and the preceding voyage have been subjected, in reference to the magnetic influence of their iron, we find reason to conclude from the consistent experience of both voyages, that the disturbance in them was altogether such as would be occasioned by the magnetism induced in the soft iron of the ship by the magnetism of the earth,—if we permit ourselves to include as possessing the quality of softness, certain portions of iron which, though not permanently magnetic, do still retain polarity, and require some time to conform to the changes in magnetical relations induced by changes of geographical position. It is not improbable that this may be a general case in sailing vessels similar to the Erebus and Terror; but we should by no means be warranted in deriving a corresponding inference in regard to ships which contain steam machinery, and still less in the case of iron vessels. These may possibly possess permanent magnetism strictly so called; in addition to induced magnetism, and temporarily-abiding polarity. It is very desirable that we should have some means of judging of what may be expected in vessels of these two classes. The knowledge would be valuable were it only for the compass corrections necessary for the ordinary purposes of navigation; and it appears indispensable before a correct judgment can be formed of the confidence to which methods may be entitled, which have been already, or may hereafter be devised, to supersede these corrections by the employment of compensating forces. It is not necessary that steam or iron-built ships should perform voyages like those of the Erebus and Terror to procure this knowledge; a voyage from the British Channel to the Tropics would be sufficient; the ship should be swung before her departure from these islands, and immediately on her arrival in the Tropics, and at intervals of three or six months during her continuance there; the experiment should also be repeated on her return to England before any material alteration is made in the distribution of her iron.

Index Correction.

Index Correction of R. F. 5 *for the Observations of the Inclination in the Erebus.*—The observations at sea with this needle having been made in the one position of the instrument only, viz. with the face of the circle towards the east, and the marked side of the needle towards the observer,—we have to obtain the index correction, by comparing the inclinations observed in the same manner on shore, or on the ice, with the results given at the same places by needles of which the poles were reversed and the needle and circle used in the eight ordinary positions.

The stations which furnish this comparison are Hobarton, Sydney, New Zealand, the Falkland Islands, and two stations on the ice in the latitudes of $-63^\circ\ 23'$ and $-65^\circ\ 49'$. The results of the observations at Hobarton with needles with which the complete process for determining the inclination was gone through, were given in No. V. of these Contributions*. Those at the other five stations are as follows:—

* Philosophical Transactions, 1843, Part II. p. 165.

Observations of the Inclination, with Needles whose Poles were reversed, made at Garden Island, Sydney, July 1841.

Date.	Hour.	Needle.	Poles. α direct. β reversed.	Mean.	Remarks.
1841.	h m			° ′	
July 20.	9 20 A.M.	R 4	α −62 52·5	−62 49·5	Needles belonging to H.M.S. Erebus.
			β −62 46·5		
20.	10 45 A.M.	R 10	α −62 57·5	−62 45·6	
			β −62 33·7		
20.	1 00 P.M.	R 6	α −62 50·1	−62 54·3	
			β −62 58·5		
20.	2 15 P.M.	R 7	α −62 53·9	−62 52·9	
			β −62 51·9		
20.	9 00 A.M.	C 1	α −62 48·2	−62 46·9	Needles belonging to H.M.S. Terror.
			β −62 45·6		
		C 2	α −62 49·6	−62 45·1	
			β −62 40·5		
				−62 49·1	General Mean.

Observations of the Inclination, with Needles whose Poles were reversed, made at the Bay of Islands, New Zealand, August to November 1841.

Date.	Hour.	Needle.	Poles. α direct. β reversed.	Mean.	Remarks.
1841.	h m			° ′	
August 23.	2 10 P.M.	R 10	α −59 46·1	−59 31·5	Needles belonging to H.M.S. Erebus.
			β −59 16·9		
23.	3 10 P.M.	R 4	α −59 38·5	−59 33·0	
			β −59 27·5		
24.	8 40 A.M.	R 4	α −59 38·4	−59 32·1	
			β −59 25·8		
24.	9 45 A.M.	R 10	α −59 53·9	−59 37·4	
			β −59 21·3		
24.	11 00 A.M.	R 6	α −59 28·8	−59 31·4	
			β −59 34·0		
24.	1 10 P.M.	R 7	α −59 30·3	−59 30·4	
			β −59 30·6		
October 5.	4 00 P.M.	R 4	α −59 39·7	−59 33·5	
			β −59 27·3		
12.	7 00 A.M.	R 4	α −59 35·2	−59 31·8	
			β −59 27·9		
26.	6 35 A.M.	R 4	α −59 35·7	−59 31·9	
			β −59 28·1		
26.	9 35 A.M.	R 10	α −59 50·5	−59 38·5	
			β −59 26·6		
26.	10 35 A.M.	R 6	α −59 30·1	−59 30·8	
			β −59 31·4		
26.	1 30 P.M.	R 7	α −59 32·4	−59 34·3	
			β −59 36·2		
August 23.	9 00 A.M.	C 1	α −59 30·0	−59 28·9	Needles belonging to H.M.S. Terror.
			β −59 27·8		
23.	11 30 A.M.	C 2	α −59 31·4	−59 27·0	
			β −59 22·7		
November 6.	9 00 A.M.	C 1	α −59 32·5	−59 30·3	
			β −59 28·1		
6.	10 30 A.M.	C 2	α −59 32·8	−59 26·8	
			β −59 20·8		
				−59 31·9	General Mean.

Observations of the Inclination with Needles whose Poles were reversed, made on the ice.

Date.	Lat.	Long.	Needle.	Poles. α direct. β reversed.	Mean.		Remarks.
1841.					° ′	° ′	
December 19.	−63 23	210 02	R 4	α −77 23·1 β −77 23·4	−77 23·3	−77 23·3	Needles belonging to H.M.S. Erebus.
23.	−65 59	204 14	R 4	α −79 32·0 β −79 24·7	−79 28·4	−79 31·0	
23.	−65 59	204 14	R 6	α −79 35·6 β −79 31·5	−79 33·6		
1842.							
January 16.	−65 49	202 02	R 4	α −79 40·5 β −79 34·4	−79 37·4	−79 39·5	
16.	−65 49	202 02	R 6	α −79 36·2 β −79 42·9	−79 39·6		
16.	−65 49	202 02	R 7	α −79 41·8 β −79 41·0	−79 41·4		

Observations of the Inclination, with Needles whose Poles were reversed, made at the Magnetic Observatory at Port Louis, in the Falkland Islands, April to August 1842.

Date.	Hour.	Needle.	Poles. α direct. β reversed.	Mean.	Remarks.
1842.	h m			° ′	
April 12.	1 30 P.M.	R 4	α −52 33·5 β −52 16·7	−52 25·1	Needles belonging to H.M.S. Erebus.
12.	3 30 P.M.	R 6	α −52 26·0 β −52 32·0	−52 29·0	
12.	3 30 P.M.	R 7	α −52 30·8 β −52 30·9	−52 30·8	
15.	8 20 A.M.	R 4	α −52 36·8 β −52 16·3	−52 26·6	
15.	3 10 P.M.	R 4	α −52 39·9 β −52 12·4	−52 26·2	
19.	8 00 A.M.	R 4	α −52 36·9 β −52 17·8	−52 27·3	
19.	3 30 P.M.	R 4	α −52 35·8 β −52 16·2	−52 26·3	
22.	8 00 A.M.	R 4	α −52 36·3 β −52 16·8	−52 26·5	
22.	3 30 P.M.	R 4	α −52 36·8 β −52 15·3	−52 26·1	
26.	8 00 A.M.	R 4	α −52 35·9 β −52 10·3	−52 23·1	
26.	3 30 P.M.	R 4	α −52 36·0 β −52 08·7	−52 22·3	
29.	8 00 A.M.	R 4	α −52 38·3 β −52 18·8	−52 28·6	
May 3.	8 00 A.M.	R 4	α −52 35·8 β −52 06·4	−52 21·1	
3.	3 30 P.M.	R 4	α −52 36·8 β −52 16·9	−52 26·8	
6.	8 00 A.M.	R 4	α −52 36·3 β −52 17·1	−52 26·7	
6.	3 30 P.M.	R 4	α −52 37·3 β −52 14·9	−52 26·1	

Observations of Inclination. (Continued.)

Date.	Hour.	Needle.	Poles. α direct. β reversed.	Mean.	Remarks.
1842.	h m		° ′	° ′	
May 10.	10 30 A.M.	R 4	α −52 31·2 β −52 25·2	−52 28·2	
10.	3 00 P.M.	R 4	α −52 24·3 β −52 30·6	−52 27·5	
13.	8 00 A.M.	R 4	α −52 36·7 β −52 14·5	−52 25·6	
13.	3 30 P.M.	R 4	α −52 37·0 β −52 13·5	−52 25·3	
17.	8 00 A.M.	R 4	α −52 35·6 β −52 15·3	−52 25·5	
17.	3 30 P.M.	R 4	α −52 33·4 β −52 17·7	−52 25·5	
20.	8 00 A.M.	R 4	α −52 36·8 β −52 13·2	−52 25·0	
20.	3 30 P.M.	R 4	α −52 34·3 β −52 13·0	−52 23·7	
24.	8 00 A.M.	R 4	α −52 36·5 β −52 18·6	−52 27·7	
24.	3 30 P.M.	R 4	α −52 37·6 β −52 17·7	−52 27·7	
27.	8 00 A.M.	R 4	α −52 23·5 β −52 12·5	−52 23·0	
27.	3 30 P.M.	R 4	α −52 32·8 β −52 14·0	−52 23·4	
June 1.	8 00 A.M.	R 4	α −52 37·1 β −52 16·0	−52 26·5	
1.	3 30 P.M.	R 4	α −52 35·3 β −52 16·2	−52 25·7	
4.	8 00 A.M.	R 4	α −52 35·4 β −52 17·7	−52 26·5	Needles belonging to H.M.S. Erebus.
4.	3 30 P.M.	R 4	α −52 36·3 β −52 16·9	−52 26·6	
7.	8 00 A.M.	R 4	α −52 36·4 β −52 15·4	−52 25·9	
7.	8 00 A.M.	R 4	α −52 29·0 β −52 13·7	−52 26·4	
10.	8 00 A.M.	R 4	α −52 38·4 β −52 16·4	−52 27·4	
10.	3 30 P.M.	R 4	α −52 35·9 β −52 17·6	−52 26·8	
14.	8 00 A.M.	R 4	α −52 35·8 β −52 16·2	−52 26·0	
14.	3 30 P.M.	R 4	α −52 41·3 β −52 13·2	−52 27·3	
17.	8 00 A.M.	R 4	α −52 34·8 β −52 14·7	−52 24·8	
17.	10 00 A.M.	R 6	α −52 20·4 β −52 28·0	−52 24·2	
17.	11 00 A.M.	R 7	α −52 32·1 β −52 23·4	−52 27·8	
17.	3 30 P.M.	R 4	α −52 34·0 β −52 13·6	−52 23·8	
21.	8 00 A.M.	R 4	α −52 29·9 β −52 18·6	−52 24·2	
21.	3 30 P.M.	R 4	α −52 29·7 β −52 19·9	−52 24·8	

Observations of Inclination. (Continued.)

Date.	Hour.	Needle.	Poles. α direct. β reversed.	Mean.	Remarks.
1842.	h m		° ′	° ′	
June 28.	8 00 A.M.	R 4	α −52 28·8 β −52 14·1	−52 21·5	
July 1.	3 30 P.M.	R 4	α −52 37·7 β −52 03·6	−52 20·7	
5.	8 00 A.M.	R 4	α −52 28·7 β −52 14·3	−52 21·5	
8.	3 30 P.M.	R 4	α −52 35·4 β −52 11·5	−52 23·5	
12.	8 00 A.M.	R 4	α −52 34·1 β −52 11·9	−52 23·0	
15.	3 30 P.M.	R 4	α −52 35·6 β −52 09·7	−52 22·7	
19.	8 00 A.M.	R 4	α −52 32·8 β −52 11·6	−52 22·2	
22.	3 30 P.M.	R 4	α −52 31·8 β −52 14·8	−52 23·3	
August 2.	8 00 A.M.	R 4	α −52 32·6 β −52 16·1	−52 24·3	Needles belonging to H.M.S. Erebus.
9.	8 00 A.M.	R 4	α −52 33·4 β −52 11·9	−52 22·6	
12.	3 30 P.M.	R 4	α −52 32·7 β −52 13·8	−52 23·2	
16.	8 00 A.M.	R 4	α −52 29·9 β −52 10·1	−52 20·0	
19.	3 30 P.M.	R 4	α −52 38·4 β −52 11·9	−52 25·2	
23.	8 00 A.M.	R 4	α −52 10·0 β −52 34·0	−52 22·0	
23.	9 00 A.M.	R 6	α −52 25·7 β −52 19·3	−52 22·5	
23.	10 00 A.M.	R 7	α −52 30·9 β −52 17·5	−52 24·2	
April 15.	8 00 A.M.	C 1	α −52 47·0 β −52 21·7	−52 34·3	
15.	3 00 P.M.	C 1	α −52 46·1 β −52 24·9	−52 35·5	
19.	8 45 A.M.	C 1	α −52 43·3 β −52 20·2	−52 31·8	
19.	3 45 P.M.	C 1	α −52 42·8 β −52 21·6	−52 32·2	
June 15.	8 00 A.M.	C 1	α −52 40·4 β −52 24·4	−52 32·4	
15.	9 00 A.M.	C 2	α −52 37·8 β −52 20·9	−52 29·4	
15.	3 00 A.M.	C 1	α −52 39·9 β −52 23·4	−52 31·7	
15.	3 40 A.M.	C 2	α −52 35·4 β −52 23·2	−52 29·3	Needles belonging to H.M.S. Terror.
July 26.	8 40 A.M.	C 1	α −52 44·9 β −52 23·5	−52 34·2	
26.	10 30 A.M.	C 2	α −52 38·6 β −52 15·3	−52 26·9	
August 17.	10 00 A.M.	C 1	α −52 50·4 β −52 21·0	−52 35·7	
17.	10 30 A.M.	C 2	α −52 36·2 β −52 14·1	−52 25·1	
23.	9 30 A.M.	C 1	α −52 39·9 β −52 24·9	−52 32·4	
23.	11 00 A.M.	C 2	α −52 33·8 β −52 19·2	−52 26·5	
23.	11 40 A.M.				
				−52 26·2	General Mean.

From these observations we have the true inclination at these six stations as follows :—

On ice, lat.—65° 49′. Long. 202° 02′ . .	79° 39′·5
On ice, lat.—63 23. Long. 210 02 . .	77 23·3
Hobarton	70 40·7
Sydney	62 49·1
New Zealand	59 31·9
Falkland Islands	52 26·2

The observations with R. F. 5, at the same stations, and at the same spots on shore, or on the ice, gave as follows :—

	On Ice. Lat. —65° 49′. Long. 202° 02′.	On Ice. Lat. —63° 23′. Long. 210° 02′.	Hobarton.	Sydney.	New Zealand.	Falkland Islands.
Face East	—79° 35′·6	—77° 15′·5	—70° 26′·4	—62° 46′·3	—59° 29′·8	—52° 32′·9
Face West	—80 39·2	—78 20·3	—71 20·3	—63 44·3	—60 27·9	—53 34·7
Mean	—80 07·4	—77 47·9	—70 53·4	—63 15·3	—59 58·8	—53 03·8

We have thus the following index corrections :—

Face East	− 3′·8	− 7′·8	−14′·3	− 2′·8	− 2′·1	+ 6′·7
Face West	+59·7	+57·0	+39·6	+55·2	+56·0	+68·5
Mean correction	+27·9	+24·6	+12·7	+26·2	+26·9	+37·6

and the difference of the results with the face east and face west as follows :—

63′·6	64′·8	53′·9	58′·0	58′·1	61′·8

From the signs and numerical values of the corrections of the *mean results* with R. F. 5, we may infer that the axis of rotation in this needle deviated from the centre of gravity in the longitudinal direction, so as to cause the south end of the needle slightly to preponderate. From the differences of the results with the face east and face west, it appears that there was also a small deviation in the axis of rotation from the centre of gravity in the perpendicular direction. In the results with the face east, these two sources of error partially counteracted each other, so that the index correction with the face east amounted at no time to more than a very few minutes.

The corrections which have been applied to the observations have been taken from the following table, in which the correction for −70° has been taken as −5′·8, and the change in the correction, corresponding to an increase of one degree in the south dip, as −0′·5. In forming this table the determinations on land have been allowed a greater weight than the determinations upon the ice, the latter consisting of fewer observations, and being made probably under circumstances less favourable for this particular purpose.

Table of Index corrections for R. F. 5, face East, between −52° and −85°.

Inclination.	Correction.	Inclination.	Correction.
−52°	+3′·2	−69°	− 5′·3
−53	+2·7	−70	− 5·8
−54	+2·2	−71	− 6·3
−55	+1·7	−72	− 6·8
−56	+1·2	−73	− 7·3
−57	+0·7	−74	− 7·8
−58	+0·2	−75	− 8·3
−59	−0·3	−76	− 8·8
−60	−0·8	−77	− 9·3
−61	−1·3	−78	− 9·8
−62	−1·8	−79	−10·3
−63	−2·3	−80	−10·8
−64	−2·8	−81	−11·3
−65	−3·3	−82	−11·8
−66	−3·8	−83	−12·3
−67	−4·3	−84	−12·8
−68	−4·8	−85	−13·3

Index Correction of F. C. B. *for the Observations of Inclination in the Terror.*—The observations of inclination at sea in this ship were all made with the face of the instrument towards the east, and with the marked face of the needle towards the observer. We may examine the index corrections consequently in the same manner, and by comparison with the same complete determinations as in the case of the needle of the Erebus; confining the comparison however to the land stations, because F. C. B. was not observed with at either of the ice stations.

The inclinations taken with this needle were observed both direct and with the aid of deflectors; the deflectors employed were a spare needle as "deflector N" and "deflector S"; and the magnets of the apparatus, either used separately as "magnet N," or "magnet S," or conjointly as "magnets N S." From some instrumental accident, the inclinations observed with "deflector N" were always considerably in defect of the others when the face of the circle was east; with a corresponding excess with the face west, on the few occasions on shore when the observations were made in both positions. As the observations at sea were exclusively with the face east, it has been necessary on this account to consider separately those amongst them which were taken with "deflector N," and to obtain a distinct index correction for them. We will first examine the index corrections required for the direct observations, and for those with the other deflectors.

The observations with F. C. B. on shore at the four land stations, where the com-

plete process for determining the true inclination was gone through with other needles, were as follows:—

		Hobarton.	Sydney.	New Zealand.	Falkland Islands.
Observed . .	Face East	−70° 17′·3	−62° 22′·4	−58° 50′·6	−51° 38′·4
	Face West	−70 44·8	−62 56·5	−60 02·8	−52 57·2
Mean		−70 31·1	−62 39·5	−59 26·7	−52 17·8
True inclination		−70 40·7	−62 49·1	−59 31·9	−52 26·3
Index correction	Face East	−23′·4	−26′·7	−41′·3	−47′·9
	Face West	+ 4·1	+ 7·4	+30·9	+30·9
	Mean . .	− 9·7	− 9·6	− 5·2	− 8·5
Differences face East and West		27·5	34·1	72·2	78·8

The corrections of the *mean results* with F. C. B. at the four stations accord well within the limits of observation error. On examining the differences in the results with the face east and face west, and the corrections severally required in the two positions at the four stations, it appears probable that a very slight derangement of some part of the instrument took place between the observations at Sydney and those at the Bay of Islands, which caused the partial results with the face east and face west to diverge more from each other than they had done previously, but without affecting the mean results. A note which accompanied the observations to England shows that Captain Crozier considered that some slight change had taken place in the amount of the index correction with the face east, but was unable to assign its date or its cause. In the absence of any distinct evidence in these respects,—and in consideration of the insufficiency of the means of assigning the precise amount of the change,—I have preferred the employment of an arithmetical mean of the index corrections observed at the four stations (−35′) during the whole course of the voyage. The uncertainty arising from this source cannot amount to more than a very few minutes in any portion of the voyage.

For the index correction with deflector N we have,

	Hobarton.	Sydney.	New Zealand.	Falkland Islands.
Face East . . .	−69° 33′·5	−61° 36′·7	−57° 58′·0	−50° 54′·4
Face West . . .	−71 25·9	−63 00·7	−60 12·3	−53 31·3
Mean	−70 29·7	−62 18·7	−59 05·1	−52 12·8
True inclination	−70 40·7	−62 49·1	−59 31·9	−52 26·3
Index correction, face East . .	−67′·2	−72′·4	−93′·9	−91′·9

Mean index correction, face East . . . . . −81′

Elements of Calculation of the Intensity Observations.

1. *With Weights.*—The observations of the intensity of the magnetic force, during the period now under consideration, were made in both ships with Mr. Fox's apparatus; those in the Erebus with the same circle which had been used in the previous voyage, and those in the Terror with a circle of the same size as that of the Erebus, being the property of Captain Crozier, and received by him at Van Diemen Island. The needle employed to show the angles of deflection in the Erebus, marked R. F. 5, was not the same which had been used for that purpose in the voyage of 1840–1841, namely, R. F. 4, which now in its turn was used as a deflector. The weights employed in deflecting the intensity needle were 1, 2, 3, 4, 5 and 6 grains: the angles of deflection obtained with one grain were however too small to yield results of the same satisfactory nature as those derived from the weights from two to six grains, and I have not therefore taken them into the account. The mounted needle in the Terror was marked F. C. B., a spare needle C being used as a deflector, in addition to the deflecting magnets belonging to the apparatus. The weights were 1, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3 and $3\frac{1}{2}$ grains.

At Hobarton we have the deflections occasioned by the constant weights on the needle of the Erebus, April 1841, as follows:—

	grs.	Deflection. °	′	Therm. °
Face East.	2	13	02·8	60
	3	19	37·2	60
	4	26	47·7	60
	5	34	23·5	60
	6	42	55·7	61

	grs.	Deflection. °	′	Therm. °
Face West.	2	13	14·5	60
	3	19	55·5	60
	4	27	02·7	58
	5	34	51·5	58
	6	43	07·3	58

and in the needle of the Terror as follows:—

	grs.	Deflection. °	′	Therm. °
Face East.	1	12	11·9	60
	$1\frac{1}{2}$	18	29·4	60
	2	25	13·7	60
	$2\frac{1}{2}$	31	43·0	60
	3	39	02·3	60
	$3\frac{1}{2}$	46	51·3	60

	grs.	Deflection. °	′	Therm. °
Face West.	1	11	42·0	60
	$1\frac{1}{2}$	17	52·6	60
	2	24	15·6	60
	$2\frac{1}{2}$	31	00·7	60
	3	38	42·3	60
	$3\frac{1}{2}$	46	06·3	60

At Sydney, in July 1841, the deflections with the same weights were—

Erebus.

	grs.	Deflection. °	′	Ther. °
Face East.	2	13	57·4	56
	3	21	13·7	55
	4	29	09·2	55
	5	37	43·3	55
	6	46	51·7	55

	grs.	Deflection. °	′	Ther. °
Face West.	2	14	32·6	64
	3	21	51·4	63
	4	29	32·1	64
	5	37	38·9	63
	6	47	32·4	63

Terror.

	grs.	Deflection. °	′	Ther. °
Face East.	1	13	08·8	60
	$1\frac{1}{2}$	20	02·0	60
	2	27	00·7	60
	$2\frac{1}{2}$	34	25·2	60
	3	42	06·9	60
	$3\frac{1}{2}$	51	13·5	60

	grs.	Deflection. °	′	Ther. °
Face West.	1	12	44·1	60
	$1\frac{1}{2}$	19	03·3	60
	2	26	01·2	60
	$2\frac{1}{2}$	33	17·7	60
	3	41	35·2	60
	$3\frac{1}{2}$	51	02·1	60

Taking 1·82 as the provisional value of the intensity at Hobarton (Phil. Trans. 1843, Part II. p. 186)*, we have its value at Sydney, by the needles of the two ships, as follows:—

Erebus.			Terror.		
grs.	Face East.	Face West.	grs.	Face East.	Face West.
2	1·703	1·662	1	1·691	1·674
3	1·687	1·667	1½	1·685	1·712
4	1·683	1·680	2	1·708	1·705
5	1·680	1·704	2½	1·692	1·709
6	1·698	1·688	3	1·709	1·715
	1·690	1·680	3½	1·703	1·687
	1·685			1·698	1·700
				1·699	

At the Bay of Islands in New Zealand, in August and October 1841, the deflections were as follows:—

Erebus.

		August.						October.					
		Deflection.		Ther.		Deflection.	Ther.	Deflection.		Ther.		Deflection.	Ther.
	grs.	°	′	°		° ′	°	°	′	°		° ′	°
Face East.	2	14	59·3	59	Face West.	15 23·3	60	14	43·2	68	Face West.	15 11·1	64
	3	22	47·5	59		23 17·9	59	22	45·0	70		23 17·2	64
	4	30	55·0	59		30 26·9	59	30	30·6	70		31 29·2	65
	5	40	10·5	58		40 52·0	60	39	59·3	70		40 51·0	65
	6	50	38·1	58		51 26·0	61	50	35·0	71		51 38·7	65

Terror.

		August.						October.					
		Deflection.		Ther.		Deflection.	Ther.	Deflection.		Ther.		Deflection.	Ther.
	grs.	°	′	°		° ′	°	°	′	°		° ′	°
Face East.	1	14	03·2	59	Face West.	13 24·3	59	13	51·7	64	Face West.	13 26·8	64
	1½	21	17·9	59		20 30·5	59	20	53·0	64		20 16·4	64
	2	28	22·1	59		27 46·9	59	28	22·4	64		27 38·8	64
	2½	36	50·7	59		35 43·0	59	37	05·6	64		35 45·1	64
	3	44	58·3	59		44 38·7	59	45	02·2	64		44 47·7	64
	3½	55	09·9	59		55 23·7	59	55	19·1	64		55 26·4	64

whence we have the intensity at the Bay of Islands, by the needles of the two ships, as follows:—

* 1·82+e being the true value, in which e is a small correction to be determined hereafter, applicable to the whole series of observations depending on Hobarton as a primary station.

Erebus.

grs.	August. Face East.	August. Face West.	October. Face East.	October. Face West.
2	1·590	1·571	1·620	1·593
3	1·578	1·568	1·583	1·570
4	1·597	1·633	1·619	1·586
5	1·594	1·590	1·603	1·591
6	1·604	1·591	1·608	1·588
	1·593	1·591	1·607	1·586
	1·592		1·596	
	1·594			

Terror.

grs.	August. Face East.	August. Face West.	October. Face East.	October. Face West.
1	1·584	1·592	1·606	1·588
1½	1·601	1·595	1·620	1·616
2	1·633	1·605	1·633	1·613
2½	1·596	1·607	1 587	1·606
3	1·622	1·619	1·621	1·616
3½	1·618	1·594	1·616	1·594
	1·609	1·602	1·614	1·605
	1·605		1·609	
	1·607			

At Port Louis in the Falkland Islands, in July and August 1842, the deflections were—

Erebus.

grs.	April. Face East. Deflection.	Ther.	April. Face West. Deflection.	Ther.	August. Face East. Deflection.	Ther.	August. Face West. Deflection.	Ther.
2	18 31·1	45	18 50·4	42	17 57·1	37	18 32·9	39
3	27 42·7	45	28 30·0	42	27 43·3	37	28 26·6	40
4	37 58·5	43	38 51·0	41	37 40·4	37	39 05·3	40
5	48 55·9	43	51 27·9	41	49 31·4	38	51 19·2	40
6	66 49·8	43	68 40·3	41	67 23·4	38	69 35·7	40

Terror.

grs.	April. Face East. Deflection.	Ther.	April. Face West. Deflection.	Ther.	July. Face East. Deflection.	Ther.	July. Face West. Deflection.	Ther.	August. Face East. Deflection.	Ther.	August. Face West. Deflection.	Ther.
1	16 56·5	43	16 14·1	43	16 51·2	41	16 26·1	41	17 00·4	38	16 15·4	38
1½	25 36·6	43	24 36·9	43	25 34·3	41	24 27·9	41	25 37·3	38	24 30·1	38
2	34 47·2	43	33 44·9	43	34 47·8	41	33 49·5	41	34 24·4	38	33 57·8	38
2½	45 34·1	43	44 31·3	43	45 29·7	41	44 17·1	41	45 20·1	38	44 32·3	38
3	57 39·1	43	58 17·8	43	57 48·7	41	58 19·5	41	57 43·6	38	57 35·7	38

whence we have the intensity at Port Louis, by the needles of the two ships, as follows:—

Erebus.

grs.	April. Face East.	April. Face West.	August. Face East.	August. Face West.
2	1·291	1·288	1·330	1·306
3	1·311	1·296	1·310	1·299
4	1·331	1·315	1·339	1·309
5	1·361	1·326	1·347	1·329
6	1·345	1·332	1·339	1·324
	1·328	1·311	1·333	1·313
	1·320		1·323	
	1·322			

Terror.

grs.	April. Face East.	April. Face West.	July. Face East.	July. Face West.	August. Face East.	August. Face West.
1	1·316	1·316	1·323	1·301	1·311	1·315
1½	1·331	1·338	1·333	1·345	1·331	1·344
2	1·356	1·342	1·355	1·339	1·369	1·335
2½	1·336	1·334	1·338	1·339	1·341	1·333
3	1·353	1·333	1·350	1·333	1·352	1·344
	1·338	1·332	1·340	1·331	1·341	1·334
	1·335		1·336		1·337	
			1·336			

Besides the four land stations at which the intensities shown by the needles of the two ships have been thus compared, we have also one ice station in lat. −65° 47′, long. 202° 08′, at which similar comparisons may be instituted. The deflections and intensities were as follows:—

		Erebus.		
	grs.	Deflection.	Ther.	Intensity.
Face East.	2	° ′ 12 13·0	° 50	1·940
	3	18 32·4	54	1·921
	4	24 49·3	54	1·952
	5	32 02·4	54	1·936
	6	39 31·4	55	1·946
				1·939

		Terror.		
	grs.	Deflection.	Ther.	Intensity.
Face East.	1	° ′ 11 25·4	° 53	1·940
	1½	17 08·3	53	1·957
	2	23 02·9	53	1·979
	2½	29 16·2	53	1·955
	3	36 17·4	53	1·935
	3½	43 23·5	53	1·932
				1·950

Collecting these several results in one view, we have as follows:—

	Erebus.	Terror.	Difference.
Intensity at Hobarton	1·82	1·82	(Erebus in defect.)
Intensity at Sydney	1·685	1·699	·014 or 8 parts in 1000
Intensity at the Bay of Islands	1·594	1·607	·013 or 8 parts in 1000
Intensity on ice, lat. −65° 49′, long. 202° 02′	1·939	1·950	·011 or 7 parts in 1000
Intensity at Port Louis, Falkland Islands .	1·322	1·336	·014 or 10 parts in 1000

The difference between the results given by the needles of the two ships, though small, is so consistently shown at all the stations during the voyage, that we cannot hesitate to attribute it to the occurrence of a change of corresponding amount in the magnetism of one needle or the other, between the observations at Hobarton in April 1841, and those at Sydney in July of the same year. If we further compare the intensities observed at sea by the two ships on the passage from Hobarton to Sydney, we find that a similar difference prevails in them; and we are therefore led to the conclusion, either that the needle of the Terror gained, or that the needle of the Erebus lost, a very small portion of magnetism, in the period between the observations at Hobarton in April 1841, and the departure of the Expedition from that port in the following July. Now experience has shown that a loss of magnetism is no unfrequent occurrence, whilst a gain is extremely rare, happening only, as far as we know, from such an accident as the contact of a needle with a more powerful magnet than itself. We may therefore conclude with great probability that the needle of the Erebus sustained a small loss of magnetism between April and July 1841, antecedent to all the observations of the voyage, causing the intensities derived with it, *when computed in reference to the angles of deflection observed at Hobarton in April* 1841, to require to be increased about one hundredth part, or more precisely 8 parts in 1000, in order

to bring them into strict relation with 1·82, taken as the value of the force at Hobarton. This correction being applied, all the intensities observed throughout the voyage by the two ships are in accordance (subject only to errors of observation), forming a consistent series of relative determinations, resting on 1·82 and 1·336, assumed provisionally as the values of the intensity at Hobarton and Port Louis, the commencing and concluding stations of the series. The correction is made in the Table which exhibits the intensities observed on board the two ships, and the geographical positions to which they belong; it is also made in the results inserted in the Map. The correctness of the values assumed at the base stations, 1·82 at Hobarton and 1·336 at Port Louis, remains to be proved by absolute determinations which have yet to be made at those two stations. The absolute intensities observed by the Expedition itself, with the instruments and according to the method prescribed in the instructions of the Royal Society, certainly have not the necessary precision. In the preceding Number of these Contributions are stated the results of five determinations which were obtained by Captain Ross at Hobarton in 1840 and 1841, with the 15-inch magnets of his observatory magnetometers; and of twenty-two determinations obtained by Lieut. Kay at the magnetic observatory at that station, with similar instruments, in 1841 and 1842. Captain Ross's mean result was 4·573, the partial results varying from 4·491 to 4·626. Lieut. Kay's mean result in 1841 was 4·553, the partial results (ten in number) varying from 4·509 to 4·601; and in 1842 4·513, the partial results (twelve in number) varying from 4·443 to 4·568. In 1843 Lieut. Kay received the *auxiliary apparatus* supplied in compliance with the *revised instructions* of the Royal Society, published in 1842. The magnets of this apparatus were 12 inches in length. The following Table exhibits the results obtained with this instrument in thirteen determinations made with it, between June 23rd and July 1st, 1843. Each determination is deduced from two series of observations of deflection; in the first six instances the distances were 4·505 and 6·005 feet; in the remainder, 4·0 and 5·3 feet. The moment of inertia of the deflecting magnet was computed from the length, breadth and mass of the bar.

June 23.	4·509	June 27.	4·557
24.	4·515	28.	4·505
24.	4·528	28.	4·504
26.	4·510	29.	4·549
26.	4·523	29.	4·527
27.	4·583	30.	4·466
		July 1.	4·479

Mean of the 13 determinations 4·520

Here also it is obvious, from the discrepancy of the partial results, that the angles of deflection afforded by these magnets at the prescribed distances, viz. the least distance being not less than four times the length of the bar, were still too small; and that before any final conclusion be arrived at, it is desirable that we should await the

results which will be obtained with the smaller apparatus described by Lieut. RIDDELL in his "Magnetical Instructions for the use of Portable Instruments," &c. In this apparatus the suspended and deflecting magnets are respectively 3·0 and 3·67 inches in length. Meanwhile we may derive, as a provisional value, the arithmetical mean of the four mean results already stated; allowing to each an equal weight, we have,

Ross, in 1840–1841,	15-inch magnets,	4·573		
KAY, in 1841,	do.	do.	4·553	
KAY, in 1842,	do.	do.	4·513	Mean 4·54
KAY, in 1843,	12-inch magnets,		4·520	

which, with the other necessary data stated in the preceding Number of these Contributions, would give the value of the total intensity at Hobarton 1·81 to 1·372 in London*.

* Since these pages were written I have received the details of the observations of ten distinct determinations of the absolute horizontal intensity at the magnetic observatory at Hobarton, made in August 1843 with deflecting and suspended magnets respectively of 9·18 inches and 7·50 inches in length. The deflecting distances were the same throughout, being 3·2893 and 4·3393 feet. The calculation of these observations not having been yet received from Lieut. KAY, the results have been computed by Lieut. RIDDELL, R.A., F.R.S., so far as the materials hitherto furnished permit. They give the value of X′;—being the absolute horizontal intensity (X), uncorrected for the difference in the magnetic moment of the deflecting bar produced by the earth's inducing action in the different positions in which the bar is placed in the experiments of deflection and in those of vibration; viz. 1° perpendicular to the magnetic meridian, and 2° in the plane of the meridian. We owe the suggestion of a correction due to this cause to Dr. LAMONT: but the necessary data for computing it, for the particular bars employed by Lieut. KAY on this, or on the former occasions, have not yet been received. Observations made at the Cape of Good Hope and at Woolwich, with similar bars, have given results which show that the correction may possibly prove to be of nearly the same amount for the larger and smaller bars, in which case the relative values will be but little affected, and we may estimate that the value of X at Hobarton will be about 0·02 less than X′. In the expression which has been employed in these Contributions for the absolute horizontal intensity (1·82+e at Hobarton and 3·72+e at London, e being a small quantity to be supplied hereafter), the correction here referred to will form a portion of e. The following Table exhibits the abstract of the observations made in August 1843 with 9·18 and 7·50 inch bars.

Gottingen Mean Time.	Deflecting Magnet.			Values of X′.	Bifilar Magnetometer. k=000229. q=000224.	
	No.	Value of m'.	Temperature during deflection.		Reading.	Temp.
d h						
1843. Aug. 20 19·0	9·18 inch.	6·256	54·6	4·5052	165·1	52·0
21 11·5	9·18 inch.	·259	49·6	·5034	168·6	49·1
21 16·5	9·18 inch.	·251	51·9	·5043	165·3	49·1
21 19·5	9·18 inch	·261	53·7	·4993	168·3	50·0
22 11·0	9·18 inch.	·227	48·0	·5177	165·4	49·3
22 19·5	9·18 inch.	·243	54·5	·5025	164·6	50·7
23 10·8	9·18 inch.	·259	50·7	·4884	161·0	51·2
23 18·1	9·18 inch.	·244	52·4	·5005	162·2	51·0
23 19·1	9·18 inch.	·240	52·0	·4982	163·9	51·3
25 11·4	9·18 inch.	·252	49·4	·4953	165·3	51·5
		6·249	51·7	4·5015	165·0	50·5

The mean value of the results, 4·501, is considerably different from the mean deduced in the text from all

At the Falkland Islands there were two determinations of the absolute horizontal intensity made by Captain Ross at the Magnetic Observatory at Port Louis, one in September 1842, being 6·87, and a second in November of the same year, being 6·32. They were both made with 15-inch magnets; the angles of deflection were observed at four distances, but amounted only to 56′·8, 31′·9, 21′·4, and 12′·9 in the first experiment, and to 1° 49′·9, 1° 01′·6, 41′·5, and 25′·1 in the second experiment.

These values of the horizontal intensity would give that of the total intensity at Port Louis respectively 1·609 and 1·367. It is obvious that we can draw no conclusion whatsoever from these numbers, and that we must wait for the confirmation or correction of the value given by the needles of Mr. Fox's instrument, until absolute determinations can be procured with instruments capable of affording more satisfactory results. Steps have been taken to obtain such determinations at the Falkland Islands from Captain Sullivan, R.N., and at Sydney and New Zealand from the Surveying Expedition under Captain Blackwood, R.N.; when these arrive, we may learn whether any and what final correction will require to be applied to the intensities now provisionally deduced from the observations with Mr. Fox's needles, in the Erebus and Terror. We may expect to receive these determinations before the time when the results now presented to the Royal Society will have to be combined with those of the preceding and succeeding years, in a general calculation of the magnetic lines in the southern hemisphere.

2. *With Deflectors.*—In the Erebus, the spare needle R. F. 4 was employed,—as "deflector S," with its south pole opposite to the division of the circle which the south pole of the mounted needle had previously indicated as the dip;—and as "deflector N," with its north pole similarly applied to the opposite division of the circle. The angles of deflection varied in different localities during the voyage, in round numbers as follows:—Deflect. S from 52° to 71°; and deflect. N from 49° to 67°. For obtaining the equivalent weights to the deflecting force of the deflectors at these angles, we have the comparative observations with deflectors and weights at Hobarton, Sydney, New Zealand, the Falkland Islands, and on the ice in lat. −65° 47′, long. 202° 08′. The angles of deflection caused by the weights have been already stated;

the preceding observations; yet from the improvement which it is natural to suppose practice must have made in the observers, and from the reduced discrepancies of the partial results with the smaller bars, the mean of the ten results in August 1843 would seem entitled to a preference over the earlier and more numerous results. Judging by what has been done at Woolwich with the 2·45 and 3 inch magnets, and at the Cape of Good Hope with 3·0 and 3·67 inch, we may expect with them a still further and considerable reduction in the discrepancies of the partial results; but it would not be safe, with the comparisons which we have now before us, to feel full confidence that there will be no apparently constant or systematic difference between the results of the larger and smaller bars. Reviewing the whole subject, we can as yet, therefore, only consider ourselves as being in progress towards such accuracy in determining the ratio of the intensity at different places by the absolute method, as shall be superior to that with which it was previously obtained by the employment of well-selected needles in relative determinations.

those by the deflectors, with the equivalent weights deduced from the comparison, are collected in the following Table.

Station.	Date.	Intensity deduced by weights.	Angles of deflection by		Equivalent weights.	
			Def. S.	Def. N.	Def. S.	Def. N.
			° ′	° ′	grs.	grs.
Hobarton	April 1841	1·82	56 28·6	53 02·6	7·39	7·08
Sydney	July 1841	1·685	59 10·2	55 37·0	7·05	6·77
New Zealand....	Aug. and Oct. 1841	1·594	61 46·9	57 59·0	6·84	6·58
On ice	January 1842	1·939	54 03·1	50 35·0	7·65	7·30
Falkland Islands .	April and Aug. 1842	1·322	71 11·8	67 10·3	6·10	5·93

By projecting these angles and weights, and proceeding in the manner described in the Third Number of these Contributions*, the values of w' in the following Table were obtained for each deflector, corresponding to each angle of deflection v'; and employing these values of w', the intensities I′ entered in the general table of observations have been computed by the formula

$$I' = \frac{1{\cdot}82 \sin 56^\circ\, 28'{\cdot}6}{7{\cdot}39} \cdot w' \operatorname{cosec} v' = 2{\cdot}053 w' \operatorname{cosec} v'.$$

Besides the observations with the spare needle R. F. 4, employed as a deflector, angles of deflection were occasionally observed with the magnets N and S, belonging to the apparatus of the Erebus, used conjointly; their magnetism, however, was so much inferior to that of R. F. 4, that, even when both were used together, their joint effect was less than the half of either pole of R. F. 4; their results would consequently be much inferior in precision to those of R. F. 4, and I have not therefore employed them.

Def. S.						Def. N.					
v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.
°	grs.	°	grs.	°	grs.	°	grs.	°	grs.	°	grs.
52	7·87	59	7·11	66	6·47	49	7·49	56	6·76	63	6·19
53	7·76	60	7·01	67	6·39	50	7·38	57	6·67	64	6·13
54	7·65	61	6·91	68	6·31	51	7·27	58	6·57	65	6·06
55	7·54	62	6·82	69	6·24	52	7·17	59	6·48	66	6·00
56	7·43	63	6·73	70	6·17	53	7·07	60	6·40	67	5·94
57	7·32	64	6·64	71	6·10	54	6·97	61	6·33		
58	7·21	65	6·55	72	6·03	55	6·86	62	6·26		

In the Terror, the spare needle marked C was employed both as "deflector N" and "deflector S." The magnets belonging to the apparatus were also used, N separately, and N and S conjointly. Observations were also occasionally made with magnet S, but its magnetism was so feeble, and the deflections obtained with it consequently so small in comparison with the others, that the results are not entitled to the same confidence, and have not therefore been taken into the account. The equivalent weights have been obtained, as in the Erebus, from the comparative observations with weights and deflectors at Hobarton, Sydney, New Zealand, the Falkland

* Philosophical Transactions, 1842, Art. II.

Islands, and on the ice in lat. −65° 47′, long. 202° 08′. I have also, in the case of the Terror, availed myself of a comparison of the weights and deflectors made on the 3rd, 4th and 5th of December 1841, at sea, when the weather was extremely favourable, and the ship did not materially change her position. From the observations on these days we have as follows:—

December 1841.	Intensity deduced by weights.	Angles of deflection by			
		Def. N.	Def. S.	Mag. N.	Mag. N S.
3 A.M.	1·783	36° 55·9	34° 06·7	30° 44·1	40° 52·8
3 P.M.	1·778	36 51·6	34 06·3	30 46·1	40 45·8
4	1·773	36 41·8, 44·7	34 22·0	30 48·7	40 56·3
5	1·779	36 18·3	34 29·4	30 46·1	40 54·9
Mean ..	1·778	36 42·5	34 16·0	30 46·2	40 52·5

The several comparisons from which the equivalent weights are derived, together with the weights so derived, are collected in the following Table.

Station.	Date.	Intensity deduced by weights.	Angles of deflections by				Equivalent weights.			
			Deflector N.	Deflector S.	Magnet N.	Magnets N S.	Deflector N.	Deflector S.	Magnet N.	Magnets N S.
							grs.	grs.	grs.	grs.
Hobarton	April 1841 ..	1·820	36° 00·6	33° 23·0	30° 14·0	40° 05·5	2·793	2·613	2·391	3·059
Sydney	July 1841 ..	1·699	38 05·9	35 15·7	31 47·2	41 45·3	2·736	2·560	2·336	2·953
New Zealand ..	Aug. and Oct. 1841	1.608	39 36·8	36 57·8	32 50·8	42 58·4	2·675	2·525	2·276	2·861
At Sea	Dec. 3, 4 and 5, 1841	1·778	36 42·5	34 16·0	30 46·2	40 52·5	2·773	2·613	2·374	3·036
On Ice	Jan. 16, 1842	1·949	33 47·6	31 16·1	28 52·7	38 45·7	2·829	2·640	2·456	3·184
Falkland Islands	April, July and Aug. 1842	1·336	44 38·2	41 57·1	35 59·0	46 14·0	2·442	2·324	2·042	2·510

The equivalent weights for each deflector, and for each half degree of deflection, have been obtained in the manner already described, for the angles of deflection and equivalent weights in the preceding Table, and are subjoined; by their aid the intensities I′ entered in the general table of observations have been computed by the formula

$$I' = \cdot 3832 w' \operatorname{cosec} v'.$$

Def. N.				Def. S.				Magnet N.				Magnets NS.			
v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.	v'.	w'.
° ′	grs.	° ′	grs.	° ′	grs.	° ′	grs.	° ′	grs.	° ′	grs.	° ′	grs.	° ′	grs.
33 00	2·840	39 30	2·682	31 00	2·644	37 30	2·504	28 00	2·482	34 30	2·166	37 00	3·268	43 30	2·816
33 30	2·834	40 00	2·660	31 30	2·639	38 00	2·485	28 30	2·464	35 00	2·126	37 30	3·240	44 00	2·766
34 00	2·826	40 30	2·638	32 00	2·634	38 30	2·464	29 00	2·446	35 30	2·085	38 00	3·210	44 30	2·714
34 30	2·817	41 00	2·615	32 30	2·627	39 00	2·444	29 30	2·426	36 00	2·040	38 30	3·180	45 00	2·660
35 00	2·809	41 30	2·593	33 00	2·619	39 30	2·423	30 00	2·406			39 00	3·148	45 30	2·604
35 30	2·800	42 00	2·571	33 30	2·611	40 00	2·403	30 30	2·387			39 30	3·114	46 00	2·544
36 00	2·790	42 30	2·548	34 00	2·602	40 30	2·382	31 00	2·367			40 00	3·081	46 30	2·460
36 30	2·777	43 00	2·524	34 30	2·591	41 00	2·361	31 30	2·346			40 30	3·049		
37 00	2·765	43 30	2·488	35 00	2·580	41 30	2·341	32 00	2·323			41 00	3·016		
37 30	2·753	44 00	2·473	35 30	2·567	42 00	2·321	32 30	2·297			41 30	2·981		
38 00	2·738	44 30	2·448	36 00	2·554			33 00	2·268			42 00	2·944		
38 30	2·721	45 00	2·423	36 30	2·538			33 30	2·236			42 30	2·905		
39 00	2·702			37 00	2·523			34 00	2·203			43 00	2·863		

General Remarks.—If we take a general view of the magnetic DECLINATION in the southern hemisphere, particularly in the best-known portion of it, comprised between the tropics and the Antarctic Circle, we find that the phenomena present the same obvious and decided features of a duplicate system as do those of the northern hemisphere. If, following any of the geographical parallels, we carry our attention round the hemisphere, we find it divided into four spaces, in which opposite characteristics in regard to the direction of the needle alternately present themselves. In two of the spaces the change in the pointing of the needle, as the space is traversed in the direction of the parallel, is continuous and progressive towards the west, and in the other two continuous and progressive towards the east. If, for example, commencing with the meridian of 30° E. or thereabouts, we trace the parallel of −45° round the hemisphere, always proceeding in an easterly direction till we return to the meridian at which we began, we shall find that we first pass through a space in which the direction of the north end of the needle becomes progressively more and more *easterly*, either by the decrease of westerly or increase of easterly declination; we next pass into a second space, on entering which the continuity is broken, the progressive movement of the north end of the needle towards the east is arrested, and its direction becomes now more and more *westerly* as we advance; thence we pass, successively, into a third space which has the same characteristic as the first, and into a fourth which has the same as the second.

The spaces here spoken of must be distinguished from those which are characterized by the exclusive prevalence of either east or west declination: they have a more simple and pure magnetical relation, implying the predominance within each space of one or the other of the two systems of magnetic forces which govern the direction of the needle. It may happen, or it may not happen, that in one of these spaces the direction of the needle may coincide in some point or points with the *geographical* meridian; when this occurs, the space will comprise both east and west declination; when it does not happen, the declination throughout the space will be exclusively east or exclusively west as the instance may be: but in either case, the change in the direction of the needle is always continuous and uniform in character throughout the space. It is well known that if the magnetic declination be computed on the supposition of a single central magnetic axis, there will be found two, and only two such spaces in each hemisphere. The systematic discordance which the declinations in the *northern* hemisphere presented when compared with the declinations so computed, and their agreement with the phenomena deducible from a double system of forces, led HALLEY to embrace the latter hypothesis. The declinations in the southern hemisphere present an arrangement strictly analogous to that in the northern, and conduct to the same conclusion, be that conclusion what it may.

If, with HALLEY, we view the declinations in the Southern Pacific as principally influenced by the weaker system of forces, or by that to which is also to be ascribed the high intensity of the magnetic force in the same quarter, we should be prepared

to expect that if the geographical limits of the adjacent spaces, having the characteristics referred to, were determined at different epochs, the alteration in the position of the spaces, if any, would show the existence of a secular change in the system itself; that it would indicate the direction of such change; and, if the intervals were sufficiently long in reference to the precision with which the determinations were made, the average rate of the movement of translation might also be inferred.

In this view a knowledge of the geographical position of the limiting lines, or of lines drawn so as to separate one of these spaces from the next, may have a particular value. In the part of the Pacific Ocean which is now referred to, the *separating lines*, as for distinction they may be called, coincide nearly in direction with geographical meridians, and are therefore crossed nearly at right angles by vessels pursuing a course from east to west, or from west to east. Prior to our own times, the epoch of Captain Cook's voyages is perhaps that in which the observations of the declination in the Southern Pacific may be regarded with the most confidence. The determinations of that period have been collected by M. Hansteen into a map, of which he assigns the year 1770 as the mean epoch. It is one of those published in the Atlas of the Magnetismus der Erde, and comprehends the results obtained by Byron, Carteret, Wallis, Cook in three voyages, Ekeberg also in three voyages, and Abercrombie. If in this map we draw lines separating the spaces which have the opposite magnetic characteristics referred to, and compare them with the corresponding lines which we may draw in Erman's map of the Declination in 1827–1830, published in the Magnetic Instructions of the Royal Society, we find an effect of secular change very distinctly shown in the altered position of the separating lines. These lines, A and B, are drawn in the accompanying Plate *, where the two epochs, 1770, and 1827–1830, are brought into comparison. In the map of 1827–1830, the separating lines occupy a considerably more westerly position than in the earlier map, the difference amounting to about 10° of longitude. Hence we are led to the conclusion, that the spaces in the Southern Pacific, distinguished by certain magnetic characteristics, undergo a movement of translation, of which the general direction is from east to west. This direction is the opposite to that in which the change is known to take place in the corresponding quarter in the northern hemisphere (viz. in the Siberian quarter), where the secular movement is from west to east.

We are not without earlier, though possibly it may be supposed less precise, evidence of the effect of secular change in the Southern Pacific. From Halley's chart of the variation lines for 1700, we are enabled to draw the separating line B for that epoch, when we find it to have been between the longitudes of 305° and 310°. In a still earlier map drawn by Hansteen for the year 1600 (Magnetismus der Erde, Atlas, No. 1), representing the observations of the very able and scientific navigators of that period, we find the position of the same line to have been about 333° of east longitude.

In the observations of Captain Ross's voyage, we have the most recent evidence of the progressive westerly movement of the magnetic phenomena in the Southern

* Plate XII.

Pacific. The separating lines A and B, deducible from the observations in 1842, are seen in the Plate to be in both cases considerably to the west of those derived from the observations of 1827–1830.

The whole body of evidence therefore, from the earliest observations to the latest, is consistent in showing a progressive movement to the westward of the spaces in the Southern Pacific, characterized by certain magnetic peculiarities, which in HALLEY's view indicated the proximity and predominance of the weaker system of forces. It is worthy of notice that the rate of progression, deduced from the changes of position shown at the several epochs, differs much less from a uniform rate than might have been anticipated from the nature of the evidence we possess, even supposing the actual rate to have been uniform in nature; whilst the magnitude of the whole change which appears to have taken place since the phenomenon became the subject of observation, in round numbers 50° of longitude in two centuries and a half, can scarcely fail to fix the attention. These are facts which, when the true physical causes of the magnetism of the globe shall occupy the earnest attention of philosophers, will probably attain an importance which at present perhaps we scarcely sufficiently estimate. But an endeavour to place distinctly before our minds facts of which the explanation must be deemed an essential condition of a satisfactory solution of this great problem, may not be without its use even at the present time. It may be also useful to call the attention of navigators to the value which may hereafter attach to determinations which may be made with instruments which are on board every ship, and in constant employ for the ordinary purposes of navigation. The position of the lines separating the spaces which have been the subject of discussion, has the advantage of being even more easily determined by observations on board ship than that of any particular declination line; in crossing them, the declination, if previously decreasing, will then begin to increase, and if previously increasing will begin to decrease; the determination is therefore independent of compass error, which is a much more prevalent source of error than is generally supposed; and if the ship's course be steady for some days together, which in the latitudes in question is very frequently the case, it is also in a great measure independent of the disturbance occasioned by the ship's iron. A very cursory inspection of the general table of the declinations observed by the Erebus and Terror suffices to show that they must have crossed the separating line (A) about the 15th of March 1842, when their latitude was about −59° and longitude 221°; and the line (B) about the 27th or 28th of the same month in latitude about −59°, and longitude 275° *.

Should the circumstance occur that one of the separating lines in the course of its progressive change of place should pass over a magnetic observatory, the epoch of its passage would be precisely determined. There is some reason for believing that

* The line A passes through the culminating points of the southerly inflexion of the declination lines, of which the present position is shown in the Declination Map at the close of this paper to be about 220° east longitude. The line B passes through the culminating points of the northerly inflexion of the declination lines about the longitude of 276°.

such an event is now taking place at the Cape of Good Hope. If we examine ERMAN's map of the Declination in 1827–1830, published in the magnetic instructions of the Royal Society, we find one of the separating lines in the neighbourhood of the Cape of Good Hope, and if we compare this map with those of earlier epochs, we find the position of that line progressively more and more to the east as we ascend in the order of time. Hence we should be led to expect that about this period it might be found to pass over the meridian of the Cape. The observations which have been made daily at the magnetic observatory at the Cape, since its establishment in 1841, give reason to believe that the westerly declination which had been increasing for above two centuries, attained its maximum in the year 1842 or 1843. In April 1841 the declination was 29° 05′ west, in and April 1844 29° 06′ west*. The earliest observations at the Cape with which I am acquainted, are those of DAVIS in 1605, and KEELING in 1609. (Purchas, Book iv. ch. 6. § 1. and Book iii. ch. 6. § 4.) According to these observations the declination in 1605 was 0° 30′ east, and in 1609 0° 12′ west†. The line of no declination probably therefore passed over the Cape about the year 1607, and in 235 years the westerly declination has increased from 0° to 29°, (omitting the odd minutes,) or at an annual average rate of 7′·4. Observations at several intermediate epochs show that the progression of this change was at least not very far from being an uniform one. If we divide the whole period into four equal parts, we should have

In the year 1607	0°	0′	
In the year 1666	7	15	W.
In the year 1725	14	30	W.
In the year 1784	21	45	W.
In the year 1843	29	0	W.

In the appendix of HANSTEEN's Magnetismus der Erde, p. 24, we have the record of actual observations as follows:—

In the year 1667	7°	15′	W.
In the year 1724	16	27	W.
	16	18	W.
In the year 1780	22	16	W.

We may therefore conclude that the westerly declination at the Cape, which for above 200 years had increased at an average rate of about 7′·4 a year, or a degree in about eight years, has been for the last three years nearly stationary, having arrived at a maximum of 29° and a few minutes about the year 1843; and that a decreasing progression may now be expected‡. Ships passing the Cape, on a voyage to the

* The observations at the magnetic observatory at the Cape of Good Hope, preparing for the press, will show the mean declination in each month of the years referred to.

† See also, for the latter observation, HANSTEEN's Magnet. der Erde. Anhang. S. 146.

‡ Captain FITZROY observed 28° 30′ in 1836; at that epoch, consequently, the maximum had not been reached. Sir EDWARD BELCHER, in 1842, observed 29° 13′.

east, will find that the westerly variation, which increases the whole way from the Brazils to about the meridian of the Cape, begins there to diminish, and continues to diminish, passing into easterly variation increasing, for above 100 degrees of longitude east of the Cape. The separating line which now passes through the Cape divides spaces distinguished by opposite magnetic characteristics; on the west side of the Cape the north end of the needle moves to the west, and on the east side to the east, as east longitude increases.

The maps which exhibit the results of the observations in the two ships, of the Declination, Inclination and Intensity, in the voyage of 1841–1842, and the isogonic, isoclinal, and isodynamic lines traced approximately in conformity with them, are a continuation of the maps published in No. V., which embodied in a similar manner the results of the preceding voyage. The results in the Erebus are distinguished from those in the Terror by a different character, for the purpose of permitting the degree of accordance in the two series of independent determinations to be readily judged of by the eye. These maps afford the best reply to those who have expressed doubts of the success of observations of the inclination and intensity made at sea.

Magnetic lines, drawn from observations made in parts of the globe to which observation had not previously extended, are the proper test by which we may judge of the degree of approximation with which the values of the numerical elements have been obtained in a general mathematical theory of terrestrial magnetism, such as M. Gauss's. The portion of the observations of the Antarctic Expedition which has been placed before the Royal Society in No. V. and in the present number of these Contributions, permits us already to form some conclusion on this point. Plate XIII. exhibits the lines of one of the magnetic elements, i. e. the intensity, computed by M. Gauss's theory, and drawn in Plates XVIII. and XIX. of the Atlas des Erdmagnetismus, compared with the lines which are the direct results of observation.

The very imperfect resemblance between the two systems of lines is of course no impeachment of the sufficiency of the theory, with corrected numerical elements, to represent the natural phenomena in parts of the globe which observation may not have reached. The degree of approximation to which it will do this must depend upon the extent and correctness of the observation-basis from whence the numerical elements are derived, and upon the order of the magnitudes comprehended in the calculation.

The evidence which the plate affords, that the calculations in the elaborate work referred to differ so widely from the facts in the southern latitudes, shows how much observations were wanting in those latitudes for the purpose of perfecting the theory; and is an ample justification (if indeed any justification were necessary) of the exertions which the last few years have witnessed to obtain them.

Since these pages were written I have received from Mr. Archibald Smith the following note. Regarding it as a continuation of the memorandum with which he

was so obliging as to favour me, printed in the last number of these Contributions, I avail myself of this oportunity of giving it an early circulation.

"The apparent changes in the values of the constants a, b, c and d, in the Erebus and Terror (Contributions, No. V., p. 153), seem to show that those vessels had an appreciable quantity of magnetism, which was so far permanent, as to retain for a considerable time traces of the inductive force to which they had been exposed, and perhaps some strictly permanent magnetism. It seems, therefore, desirable to introduce into the expressions in the memorandum printed at p. 147 of Contribution No. V., terms which will represent such forces.

"Suppose, then, as in the memorandum, that φ represents the total magnetic force of the earth at the place of observation, θ the inclination, ζ the azimuth of the ship's head, reckoning from N. to W., and that φ', θ', ζ' represent the values of the same quantities shown by an instrument at a fixed position in the vessel, and affected by the attraction of the iron in the vessel; and let P, Q, R represent the attraction of the permanent magnetism in the vessel to the bow, to the starboard side, and vertically downwards. The fundamental equations of the former memorandum become by the introduction of these terms,

$$\varphi' \cos\theta' \cos\zeta' = \varphi\,[A' \cos\theta \cos\zeta + B \cos\theta \sin\zeta + C \sin\theta] + P$$
$$\varphi' \cos\theta' \sin\zeta' = \varphi\,[D \cos\theta \cos\zeta + E' \cos\theta \sin\zeta + F \sin\theta] + Q$$
$$\varphi' \sin\theta' = \varphi\,[G \cos\theta \cos\zeta + H \cos\theta \sin\zeta + K' \sin\theta] + R.$$

"In these equations A', B, C, D, E', F, G, H and K' are constants depending on the distribution of the soft iron in the ship, and perhaps on the temperature and other circumstances.

"If we suppose, as before, that the soft iron is symmetrically disposed, the equations (1.) (2.) and (3.) of the former memorandum become,

$$\frac{\varphi' \cos\theta' \cos\zeta'}{A'\varphi \cos\theta} = \cos\zeta + a \tan\theta + \frac{P}{A'\varphi \cos\theta} \quad \ldots\ldots\ldots \quad (1.)$$

$$\frac{\varphi' \cos\theta' \sin\zeta'}{A'\varphi \cos\theta} = b \sin\zeta + \frac{Q}{A'\varphi \cos\theta} \quad \ldots\ldots\ldots \quad (2.)$$

$$\frac{\varphi' \sin\theta'}{A'\varphi \cos\theta} = c \cos\zeta + d \tan\theta + \frac{R}{A'\varphi \cos\theta} \quad \ldots\ldots\ldots \quad (3.)$$

"Let H represent the horizontal force $= \varphi \cos\theta$, H' the affected horizontal force $= \varphi' \cos\theta'$, and let $a \tan\theta + \frac{P}{A'H} = L$, $\frac{Q}{A'H} = M$, and $d \tan\theta + \frac{R}{A'H} = N$. The last equations become

$$\frac{H'}{A'H} \cos\zeta' = \cos\zeta + L \quad \ldots\ldots \quad (1\,a.)$$

$$\frac{H'}{A'H} \sin\zeta' = b \sin\zeta + M \quad \ldots\ldots \quad (2\,a.)$$

$$\frac{H' \tan\theta'}{A'H} = c \cos\zeta + N \quad \ldots\ldots \quad (3\,a.)$$

" By the introduction of the same quantities, the equations numbered from (4.) to (14.) in the former memorandum become

$$\frac{H'}{A'H} = \cos\zeta\cos\zeta' + b\sin\zeta\sin\zeta' + L\cos\zeta' + M\sin\zeta' \quad . \quad . \quad . \quad (4.)$$

$$(\cos\zeta + L)\sin\zeta' = (b\sin\zeta + M)\cos\zeta' ; \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (5.)$$

and representing $\zeta - \zeta'$, or the deviation, by δ,

$$\sin\delta = L\sin\zeta' - M\cos\zeta' + (1-b)\sin\zeta\cos\zeta' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (6.)$$

$$= \frac{2}{1+b}L\sin\zeta' - \frac{2}{1+b}M\cos\zeta' + \frac{1-b}{1+b}\cdot\sin(\zeta+\zeta') \quad . \quad . \quad . \quad . \quad (7.)$$

$$\tan\zeta' = \frac{b\sin\zeta + M}{\cos\zeta + L} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (8.)$$

$$c\cos\zeta' + N = (b\sin\zeta + M)\operatorname{cosec}\zeta'\tan\theta' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (9.)$$

$$= (\cos\zeta + L)\sec\zeta'\tan\theta' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (10.)$$

$$= \sqrt{(\cos\zeta + L)^2 + (b\sin\zeta + M)^2}\cdot\tan\theta' \quad . \quad . \quad . \quad . \quad . \quad (11.)$$

$$\tan\theta' = \frac{c}{b}\cdot\frac{\cos\zeta + \frac{1}{c}N}{\sin\zeta + \frac{1}{b}M}\sin\zeta' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (12.)$$

$$= c\frac{\cos\zeta + \frac{1}{c}N}{\cos\zeta + L}\cdot\cos\zeta' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (13.)$$

$$= \frac{c\cos\zeta + N}{\sqrt{(\cos\zeta + L)^2 + (b\sin\zeta + M)^2}} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (14.)$$

" Equation (7.) may also be put under the form

$$\sin\delta = \frac{2}{1+b}\sqrt{L^2+M^2}\sin(\zeta'-\mu) + \frac{1-b}{1+b}\sin(\zeta+\zeta'),$$

where

$$= \frac{2}{1+b}L\sec\mu\sin(\zeta'-\mu) + \frac{1-b}{1+b}\sin(\zeta+\zeta'),$$

in which $\tan\mu = \frac{M}{L}$, and μ represents the displacement of the line of no deviation towards the starboard side.

" By means of these equations we can determine A', L, b, M, c, N, from observations made at sea alone. The first four of these quantities furnish the corrections for the horizontal force and the declination. There is greater difficulty in obtaining the correction for the inclination. It will be observed that θ only occurs in these equations involved in the quantities L and N. If there were no permanent magnetism in the vessel, it would be necessary, in order to determine the correcting factors a and d, that observations of the inclination on shore, and corresponding observations on board, should be made in at least one magnetic latitude. If there is any appreciable permanent magnetism, observations of the inclination on shore and on board, and of the horizontal force, should be made in at least two magnetic latitudes. This would be sufficient if a, P, d, R remained absolutely constant. As that appears not to be

the case, as many observations as possible should be made of the inclination on shore and on board, with corresponding observations of the horizontal force. Such observations should be made with great care when the vessel is on or near the magnetic equator and before and after any rapid change of magnetic latitude, and whenever the vessel returns to a place where the observations have been made before on board the same vessel, under the same circumstances as to the distribution of her iron.

"When the permanent magnetism is symmetrically distributed, $Q=0$ and $M=0$, and the other constants may be easily, and probably with great accuracy, determined from the following equations. The small letter suffixed to the symbol of a function indicating the affected value observed with the vessel's head on the N., W., S., E. (affected) points,

$$A' = \frac{H_n + H_s}{2H} \quad \ldots\ldots\ldots\ldots \quad (15.)$$

$$a \tan\theta + \frac{P}{A'H} = L = \frac{H_n - H_s}{H_n + H_s} \quad \ldots\ldots\ldots\ldots \quad (16.)$$

$$b = \frac{H_w + H_e}{2\sqrt{H_n H_s}} \quad \ldots\ldots\ldots\ldots \quad (17.)$$

$$d \tan\theta + \frac{R}{A'H} = N = \frac{H_n \tan\theta_n + H_s \tan\theta_s}{H_n + H_s} \quad \ldots\ldots\ldots\ldots \quad (18.)$$

$$c = \frac{H_n \tan\theta_n - H_s \tan\theta_s}{H_n + H_s} \quad \ldots\ldots\ldots\ldots \quad (19.)$$

"The values of H_n, H_s, H_e, H_w, are given by the square of the number of vibrations of a horizontal needle made in a given time, and beginning to vibrate in a given arc, and require no correction except for temperature.

"If n, s, represent the number of vibrations made by such a needle in the same time, with the ship's head successively on the north and south points, and if Δ represent the value of δ when $\zeta' = \pm 90$, the values of L and Δ are given by the following simple expressions:—

"If $\tan\lambda = \frac{n}{s}$,

$$L = \cos 2\lambda. \quad \ldots\ldots\ldots\ldots \quad (20.)$$

$$\Delta = 90^\circ - 2\lambda. \quad \ldots\ldots\ldots\ldots \quad (21.)$$

The equations (18.) and (19.) may be put under the form

$$d \tan\theta + \frac{R}{A'H} = N = \frac{\varphi_n \sin\theta_n + \varphi_s \sin\theta_s}{\varphi_n \cos\theta_n + \varphi_s \cos\theta_s} \quad \ldots\ldots \quad (22.)$$

$$c = \frac{\varphi_n \sin\theta_n - \varphi_s \sin\theta_s}{\varphi_n \cos\theta_n + \varphi_s \cos\theta_s} \quad \ldots\ldots \quad (23.)$$

and the values of N and c obtained, but probably with less accuracy, from observations of the total intensity and inclinations made with a Fox's instrument.

"*Note.*—The last equation in the former memorandum is erroneous. The value of ψ cannot be obtained from two observations of the true azimuth of the ship's head, when $\zeta'_1 + \zeta'_2 = 180$, independently of a."

General Table of the Declinations observed on board Her Majesty's Ships Erebus and Terror, between May 1841 and August 1842.

Lat.	Long.	Ship.	No. of observations.	Declination.	Lat.	Long.	Ship.	No. of observations.	Declination.
° ′	° ′			° ′	° ′	° ′			° ′
		On shore			−56 19	211 53	Erebus.	18	−14 47
−42 52	147 24	at Hobarton.	....	−10 24	−56 54	212 23	Erebus.	8	−13 32
					−57 03	212 15	Terror.	10	−15 14
−43 30	147 20	Terror.	4	−12 35	−57 16	212 45	Erebus.	13	−13 54
−42 40	148 45	Erebus.	2	−10 06	−58 21	213 00	Terror.	9	−17 34
−42 17	149 30	Terror.	5	−11 49	−58 20	213 13	Erebus.	12	−14 37
−40 40	149 23	Erebus.	2	− 9 51	−62 49	212 13	Erebus.	12	−20 14
−40 51	149 21	Terror.	5	−11 11	−62 46	212 13	Terror.	15	−20 03
−37 48	150 21	Erebus.	10	−11 01	−63 19	210 22	Erebus.	6	−20 39
−37 54	150 20	Terror.	8	−10 38	−63 23	210 05	On ice.	5	−19 59
−37 14	151 34	Erebus.	13	− 9 31	−63 23	209 43	Erebus.	14	−20 44
−37 10	151 32	Terror.	10	−11 32	−63 21	209 48	Terror.	17	−20 56
		On shore			−64 29	206 55	Erebus.	11	−22 00
−33 51	151 17	at Sydney.	....	− 9 51	−64 48	206 10	Terror.	9	−22 55
					−64 54	206 05	Erebus.	8	−22 51
−33 56	151 00	Terror.	4	−11 18	−65 14	205 56	Erebus.	8	−21 51
−33 54	153 50	Erebus.	2	−10 07	−65 30	205 57	Erebus.	8	−22 46
−33 35	162 47	Terror.	10	−14 26	−66 04	203 51	Erebus.	4	−24 13
−33 33	162 01	Erebus.	8	−12 02	−65 32	204 57	Terror.	7	−24 27
−33 41	166 26	Erebus.	8	−13 34	−66 22	203 40	Erebus.	11	−25 36
−33 48	166 29	Terror.	16	−13 40	−66 04	203 16	Erebus.	8	−26 59
−33 32	167 35	Erebus.	7	−13 27	−66 10	203 37	Terror.	7	−27 24
−33 37	168 04	Terror.	12	−15 02	−66 16	204 39	Erebus.	6	−26 36
−33 42	169 44	Erebus.	11	−12 54	−66 15	204 23	Erebus.	10	−25 55
−34 15	172 33	Terror.	9	−13 45	−66 04	204 14	Erebus.	16	−25 48
−34 31	173 28	Erebus.	11	−13 56	−66 02	204 00	Terror.	18	−26 48
−34 32	173 47	Terror.	5	−13 42	−66 00	204 11	Erebus.	11	−25 26
		On shore,			−65 58	203 54	Terror.	11	−25 00
−35 16	174 00	Bay of Islands.	....	−13 36	−65 57	204 14	Erebus.	13	−25 24
					−65 58	203 54	Terror.	11	−25 59
−36 39	177 58	Erebus.	11	−14 24	−65 55	203 28	Erebus.	17	−24 58
−38 03	179 32	Terror.	10	−14 55	−65 47	202 13	On ice.	6	−25 15
−38 02	179 51	Erebus.	13	−14 44	−65 59	203 07	Terror.	15	−26 24
−39 29	182 42	Terror.	11	−16 55	−67 38	204 20	Erebus.	9	−27 46
−39 10	182 43	Erebus.	13	−14 43	−67 40	204 10	Terror.	9	−28 19
−40 51	183 16	Erebus.	11	−12 57	−67 20	202 02	Erebus.	8	−27 36
−41 59	183 28	Terror.	19	−15 13	−67 19	202 35	Terror.	11	−28 37
−42 02	183 31	Erebus.	11	−14 24	−67 19	201 56	Erebus.	8	−28 12
−46 09	183 59	Erebus.	13	−16 35	−67 20	201 40	Terror.	11	−28 33
−47 05	184 30	Terror.	11	−15 17	−68 32	200 07	Erebus.	14	−30 25
−47 32	184 52	Erebus.	11	−15 45	−68 24	199 57	Terror.	13	−32 43
−48 53	186 48	Erebus.	15	−16 23	−68 47	199 45	Erebus.	13	−32 33
−49 21	188 32	Terror.	7	−16 52	−68 52	199 40	Terror.	7	−30 47
−49 28	189 00	Erebus.	8	−17 51	−70 10	186 15	Erebus.	9	−35 42
−49 57	191 10	Terror.	7	−16 36	−70 25	185 38	Terror.	11	−38 55
−50 03	191 27	Erebus.	12	−18 23	−70 33	185 22	Erebus.	11	−38 21
−50 54	192 33	Erebus.	6	−18 18	−70 32	185 13	Terror.	12	−38 17
−50 53	192 30	Terror.	8	−16 37	−70 23	184 31	Erebus.	10	−37 35
−51 39	194 53	Erebus.	18	−15 16	−70 14	184 00	Terror.	17	−37 19
−51 50	195 06	Terror.	8	−15 14	−70 14	183 52	Erebus.	11	−36 28
−52 43	202 14	Erebus.	10	−13 58	−71 04	180 46	Terror.	5	−40 45
−53 05	204 33	Terror.	11	−14 54	−72 10	180 58	Erebus.	1	−45 37
−53 10	205 28	Erebus.	12	−13 06	−73 14	181 08	Terror.	2	−51 48
−54 54	209 24	Erebus.	8	−14 26	−75 06	173 14	Erebus.	3	−77 17
−56 20	211 40	Terror.	14	−15 14					

Observations of Declination. (Continued.)

Lat.	Long.	Ship.	No. of observations.	Declination.	Lat.	Long.	Ship.	No. of observations.	Declination.
−75° 40′	174° 56′	Terror.	5	−76° 03′	−58° 50′	222° 00′	Terror.	4	−16° 03′
−76 48	182 33	Erebus.	6	−86 23	−58 58	227 00	Terror.	1	−17 01
−76 54	182 17	Terror.	3	−82 28	−59 04	229 00	Erebus.	4	−17 49
−76 12	191 40	Terror.	2	−70 22	−60 18	236 30	Terror.	3	−20 57
−76 42	194 37	Erebus.	10	−79 57	−60 14	236 32	Erebus.	3	−20 56
−76 46	194 40	Terror.	8	−81 23	−60 02	240 31	Terror.	1	−20 48
−78 03	197 31	Erebus.	10	−87 31	−59 17	245 40	Erebus.	1	−20 14
−77 57	197 54	Terror.	8	−88 01	−58 28	251 40	Terror.	4	−22 46
−77 44	198 07	Erebus.	10	−88 08	−58 40	251 52	Erebus.	3	−21 47
−75 17	195 06	Terror.	5	−64 33	−58 40	254 59	Erebus.	4	−23 28
−74 49	193 56	Erebus.	6	−62 17	−58 36	255 20	Terror.	7	−24 46
−71 56	186 36	Erebus.	2	−45 11	−58 46	257 50	Terror.	3	−26 13
−71 08	184 54	Erebus.	5	−39 20	−58 46	258 07	Erebus.	3	−25 25
−70 58	184 03	Terror.	3	−38 26	−59 00	267 56	Terror.	8	−26 25
−70 10	180 20	Terror.	3	−31 26	−59 01	268 34	Erebus.	9	−26 17
−69 50	180 16	Erebus.	12	−30 50	−59 02	272 04	Erebus.	1	−26 51
−68 17	183 27	Erebus.	12	−27 32	−59 04	272 20	Terror.	4	−27 08
−68 02	183 35	Terror.	4	−28 50	−58 51	276 04	Erebus.	5	−26 18
−67 30	185 00	Terror.	7	−29 46	−58 55	276 26	Terror.	7	−28 25
−67 25	186 42	Erebus.	4	−27 32	−58 21	279 48	Terror.	10	−27 13
−65 51	190 25	Terror.	6	−25 02	−58 20	280 27	Erebus.	5	−25 04
−65 07	192 24	Erebus.	7	−23 40	−58 30	282 00	Terror.	10	−26 49
−63 33	194 53	Erebus.	1	−21 57	−58 30	282 05	Erebus.	8	−26 14
−62 26	195 40	Terror.	4	−19 41	−58 32	283 40	Erebus.	7	−26 18
−62 20	196 15	Erebus.	5	−19 51	−58 29	283 33	Terror.	8	−26 13
−61 00	199 00	Terror.	4	−19 49	−57 35	288 54	Terror.	1	−25 16
−61 02	199 25	Erebus.	8	−18 42	−56 46	294 30	Terror.	2	−20 26
−60 20	205 12	Terror.	4	−18 20	−52 14	301 09	Terror.	4	−18 25
−60 26	203 26	Erebus.	4	−17 31	−52 16	301 06	Erebus.	6	−16 29
−60 16	212 59	Erebus.	4	−17 01			On shore		
−60 05	213 51	Terror.	6	−17 19	−51 32	301 53	at Port	....	−17 36
−58 59	220 30	Erebus.	6	−15 30			Louis*.		

* The mean monthly results with the magnetometers of the Expedition at the observatory at Port Louis at the Falkland Islands were as follows:—

April . . .	1 to 23.	−17° 50′·3	Mean corresponding to August 15, 1842. −17 36·2.
May . . .	1 to 31.	−17 43·7	
June . . .	1 to 30.	−17 38·1	
July . . .	1 to 31.	−17 35·6	
August . .	1 to 31.	−17 33·0	
September	1 to 30.	−17 32·3	
October .	1 to 31.	−17 30·2	
November	1 to 26.	−17 26·7	

The easterly declination appears to be decreasing very rapidly at the Falkland Islands.

General Table of the Inclinations observed on board Her Majesty's Ships Erebus and Terror, between May 1841 and August 1842.

Lat.	Long.	Ship.	No. of observations.	Inclination.	Lat.	Long.	Ship.	No. of observations.	Inclination.
−43° 00′	148° 28′	Erebus.	5	−70° 25′	−40° 47′	183° 03′	Erebus.	5	−62° 21′
−42 43	148 55	Terror.	8	−70 44	−40 42	183 05	Terror.	15	−61 56
−42 13	149 25	Erebus.	5	−69 37	−41 34	183 40	Terror.	7	−62 57
−40 51	149 28	Terror.	4	−69 05	−41 49	183 41	Erebus.	5	−63 28
−40 55	149 12	Erebus.	4	−68 41	−42 40	183 46	Terror.	7	−63 46
−38 17	150 22	Terror.	4	−66 57	−43 32	183 03	Erebus.	5	−64 44
−37 50	150 22	Erebus.	4	−66 36	−43 56	183 04	Terror.	15	−65 22
−37 28	151 30	Terror.	4	−66 22	−45 40	183 20	Erebus.	5	−66 35
−37 21	151 33	Erebus.	5	−66 01	−45 39	183 18	Terror.	14	−66 43
−36 21	151 39	Terror.	3	−66 11	−47 19	184 40	Erebus.	5	−67 56
−36 01	151 48	Erebus.	4	−65 04	−47 26	184 42	Terror.	14	−67 32
−34 06	151 19	Terror.	4	−62 58	−48 42	186 25	Terror.	15	−68 40
−33 51	151 20	Erebus.	19	−62 47	−48 43	186 30	Erebus.	6	−69 05
−33 51	151 17	Terror.	7	−62 59*	−49 24	187 23	Terror.	15	−68 59
−33 51	151 17	Erebus.	8	−62 48*	−49 23	188 29	Erebus.	9	−69 41
−33 51	151 17	Terror.	11	−62 52	−49 30	189 19	Terror.	14	−68 55
−33 51	151 17	Erebus.	7	−62 42	−50 03	191 20	Terror.	14	−68 43
−33 58	153 35	Terror.	8	−62 30	−50 24	191 40	Erebus.	10	−69 43
−33 52	154 07	Erebus.	5	−62 47	−50 38	192 05	Terror.	14	−69 25
−33 56	156 38	Terror.	4	−61 46	−51 48	194 25	Terror.	15	−69 51
−33 51	157 18	Erebus.	5	−62 07	−51 48	196 20	Erebus.	10	−70 21
−33 31	160 20	Terror.	4	−61 04	−52 28	199 05	Terror.	11	−70 10
−33 27	160 43	Erebus.	5	−61 30	−52 51	203 56	Terror.	8	−70 01
−33 42	164 05	Terror.	4	−60 52	−52 54	203 00	Erebus.	11	−70 44
−33 38	163 42	Erebus.	5	−60 48	−53 01	205 08	Erebus.	6	−70 10
−33 38	166 28	Erebus.	5	−60 07	−53 12	205 40	Terror.	15	−69 52
−33 44	166 37	Terror.	10	−59 55	−54 31	208 46	Terror.	11	−70 10
−33 33	167 38	Terror.	9	−59 58	−54 53	209 24	Terror.	12	−70 21
−33 22	167 40	Erebus.	5	−59 39	−55 01	209 47	Erebus.	10	−70 58
−33 00	169 00	Terror.	9	−58 43	−55 50	211 10	Erebus.	10	−71 28
−32 58	169 20	Erebus.	5	−59 04	−56 14	211 43	Terror.	14	−71 41
−32 12	170 27	Erebus.	4	−58 33	−56 39	212 10	Erebus.	10	−72 18
−32 11	171 01	Terror.	11	−57 28	−56 06	212 20	Erebus.	6	−72 08
−33 57	171 58	Erebus.	8	−58 24	−56 40	211 57	Terror.	12	−72 00
−33 55	171 59	Terror.	5	−58 24	−57 06	212 12	Terror.	12	−72 14
−34 29	173 36	Erebus.	6	−58 26	−57 57	213 02	Terror.	10	−73 09
−33 58	172 06	Terror.	7	−58 14	−58 38	213 10	Terror.	11	−73 45
−34 15	172 50	Terror.	10	−58 48	−58 39	213 17	Erebus.	11	−73 45
−34 24	173 43	Terror.	7	−59 00	−61 12	213 52	Terror.	14	−75 32
−35 16	174 00	Terror.	3	−59 36	−61 18	213 57	Erebus.	11	−75 32
−35 16	174 00	Erebus.	10	−59 31†‡	−62 36	212 36	Terror.	8	−76 37
−35 16	174 00	Terror.	14	−59 25‡	−62 40	212 53	Erebus.	7	−76 36
−35 16	174 23	Erebus.	10	−59 28	−63 11	210 18	Terror.	12	−77 37
−36 05	176 17	Terror.	12	−59 20	−63 23	210 02	Erebus.	5	−77 26
−36 27	177 34	Erebus.	5	−59 54	−63 23	210 02	Erebus.	4	−77 25§
−38 17	179 51	Erebus.	6	−60 34	−63 23	210 02	Erebus.	3	−77 30
−38 16	179 58	Terror.	15	−60 37	−63 36	208 20	Terror.	10	−77 53
−38 54	182 17	Terror.	17	−61 21	−63 49	208 29	Terror.	10	−77 56
−39 08	182 30	Erebus.	11	−61 34	−63 47	208 26	Erebus.	5	−77 57
−39 21	182 57	Terror.	16	−61 15	−64 25	206 29	Terror.	14	−78 30

* On shore at Garden Island, Sydney; inclination by needles whose poles were reversed, −62° 49′·1.

† Correct; in page 174 it is printed by mistake −59° 29′.

‡ On shore at the Bay of Islands, New Zealand; inclination by needles whose poles are reversed, −59° 31′·9.

§ On ice; the inclination observed with needles whose poles were reversed, was −77° 23′·3.

General Table of Inclination. (Continued.)

Lat.	Long.	Ship.	No. of observations.	Inclination.	Lat.	Long.	Ship.	No. of observations.	Inclination.
−64° 42′	206° 47′	Erebus.	8	−78° 20′	−69° 53′	182° 51′	Terror.	7	−84° 09′
−65 13	206 03	Erebus.	11	−78 57	−70 37	181 09	Erebus.	9	−84 06
−65 26	205 04	Terror.	15	−79 16	−71 03	180 57	Terror.	8	−84 20
−65 47	204 19	Terror.	13	−79 26	−72 46	181 46	Erebus.	6	−85 04
−65 47	204 19	Terror.	13	−79 28	−72 07	181 50	Terror.	9	−84 59
−65 50	204 08	Terror.	11	−79 30	−73 08	181 03	Terror.	9	−85 22
−65 58	204 03	Erebus.	22	−79 31*	−73 53	180 06	Erebus.	2	−86 02
−65 59	204 03	Terror.	8	−79 39	−74 56	173 36	Erebus.	6	−86 52
−66 08	203 50	Terror.	10	−79 39	−74 59	173 40	Terror.	13	−87 05
−66 06	203 41	Erebus.	12	−79 53	−75 10	173 08	Erebus.	5	−86 59
−66 19	203 09	Terror.	14	−80 01	−75 59	175 13	Erebus.	6	−86 44
−66 26	203 25	Erebus.	13	−79 57	−76 05	174 58	Terror.	8	−87 03
−66 21	203 34	Terror.	6	−80 03	−76 58	181 03	Erebus.	5	−86 46
−66 20	203 59	Terror.	9	−79 52	−77 03	181 35	Terror.	8	−86 56
−66 34	203 34	Erebus.	42	−79 55	−76 43	184 30	Erebus.	6	−86 07
−66 05	204 02	Terror.	12	−79 51	−76 48	184 58	Terror.	8	−86 30
−66 01	204 04	Terror.	12	−79 50	−76 15	191 10	Terror.	9	−85 59
−66 11	204 21	Erebus.	14	−79 44	−76 03	193 43	Erebus.	2	−85 18
−66 13	204 33	Erebus.	11	−79 34	−76 42	194 42	Erebus.	6	−85 25
−65 59	204 01	Erebus.	14	−79 38	−76 48	194 21	Terror.	15	−85 12
−65 57	203 56	Terror.	14	−79 47	−77 05	194 38	Erebus.	5	−85 24
−65 53	203 29	Terror.	10	−79 51	−77 47	197 25	Terror.	9	−84 49
−66 11	202 12	Terror.	13	−79 48	−77 45	197 48	Erebus.	5	−84 49
−66 12	203 04	Erebus.	8	−79 35	−77 12	199 24	Terror.	8	−85 35
−66 08	201 46	Terror.	11	−79 35	−74 50	193 45	Erebus.	6	−84 49
−65 49	202 02	Erebus.	4	−79 47†	−75 20	194 36	Terror.	9	−85 46
−65 50	202 14	Terror.	13	−79 38	−72 46	189 59	Erebus.	5	−84 38
−66 09	202 56	Erebus.	9	−79 33	−73 10	189 41	Terror.	7	−85 08
−67 02	201 00	Terror.	12	−80 22	−72 01	187 35	Erebus.	5	−84 10
−66 39	202 14	Erebus.	6	−80 01	−71 01	187 37	Terror.	9	−84 56
−67 12	202 12	Terror.	10	−80 06	−71 08	184 59	Erebus.	6	−84 04
−67 36	204 00	Erebus.	9	−80 22	−71 12	184 20	Terror.	10	−84 37
−67 46	204 17	Terror.	15	−80 43	−69 54	179 55	Terror.	8	−84 30
−67 47	204 17	Terror.	15	−80 48	−69 52	180 04	Erebus.	5	−83 34
−67 16	203 20	Terror.	16	−80 44	−69 44	179 53	Erebus.	5	−83 31
−67 19	202 52	Erebus.	11	−80 26	−68 09	183 10	Terror.	7	−82 26
−67 14	201 34	Terror.	18	−80 35	−68 04	183 25	Erebus.	10	−82 13
−67 57	200 00	Erebus.	7	−80 46	−67 37	186 06	Terror.	15	−81 33
−68 38	199 57	Terror.	14	−81 18	−67 31	185 13	Erebus.	6	−81 51
−68 33	199 52	Erebus.	11	−81 14	−67 09	188 02	Terror.	7	−81 03
−68 46	199 38	Terror.	11	−81 33	−67 19	188 10	Erebus.	5	−81 02
−68 59	195 54	Erebus.	6	−81 54	−65 18	191 39	Terror.	10	−79 42
−68 52	198 24	Terror.	7	−82 30	−65 21	191 43	Erebus.	5	−79 19
−69 48	192 25	Erebus.	5	−82 35	−63 30	194 15	Terror.	7	−78 30
−69 55	192 17	Terror.	10	−83 00	−63 30	194 22	Erebus.	6	−78 11
−70 05	191 03	Terror.	9	−83 20	−62 17	195 55	Terror.	7	−77 30
−70 07	191 11	Erebus.	6	−82 51	−62 16	196 10	Erebus.	5	−77 17
−70 26	189 00	Erebus.	5	−83 07	−61 06	198 08	Terror.	9	−76 32
−70 18	186 01	Erebus.	5	−83 18	−61 11	198 45	Erebus.	5	−76 34
−70 12	186 23	Terror.	17	−83 23	−60 50	200 11	Erebus.	5	−75 33
−70 39	185 31	Erebus.	6	−83 35	−60 57	199 03	Terror.	7	−75 08
−70 32	185 38	Terror.	10	−83 30	−60 18	204 46	Erebus.	7	−75 08
−70 11	183 50	Erebus.	5	−83 33	−60 15	208 06	Terror.	7	−74 21
−69 56	184 43	Terror.	8	−84 03	−60 13	211 44	Erebus.	6	−74 21

* The inclination observed in Lat. −65° 59′, Long. 204° 14′, with needles whose poles were reversed, was −79° 31′·0.

† Observed on ice; inclination with needles whose poles were reversed, −79° 39′·5.

General Table of Inclination. (Continued.)

Lat.	Long.	Ship.	No. of observations.	Inclination.	Lat.	Long.	Ship.	No. of observations.	Inclination.
−60° 16′	211° 52′	Terror.	8	−74° 14′	−59° 00′	267° 18′	Erebus.	6	−67° 39′
−59 58	216 28	Terror.	7	−73 36	−59 02	271 58	Erebus.	5	−67 01
−59 24	218 55	Erebus.	11	−73 30	−59 01	272 06	Terror.	8	−66 53
−59 07	219 12	Terror.	17	−73 48	−58 54	276 18	Terror.	7	−66 10
−58 53	222 27	Erebus.	7	−73 38	−58 51	277 05	Erebus.	6	−65 27
−59 04	228 09	Terror.	9	−73 25	−58 25	279 44	Terror.	8	−64 44
−59 03	228 33	Erebus.	7	−72 57	−58 23	280 03	Erebus.	5	−64 49
−59 39	232 48	Erebus.	5	−72 54	−58 31	281 38	Terror.	9	−63 48
−59 45	233 55	Erebus.	4	−72 51	−58 29	282 10	Erebus.	5	−63 41
−60 09	236 11	Terror.	11	−73 01	−58 36	285 33	Terror.	7	−63 00
−60 16	236 11	Erebus.	5	−73 00	−58 31	285 56	Erebus.	5	−63 05
−60 21	237 02	Erebus.	5	−72 45	−57 21	289 36	Terror.	7	−61 36
−60 22	237 14	Terror.	10	−73 08	−57 22	289 50	Erebus.	5	−61 15
−60 20	237 54	Erebus.	9	−72 44	−57 26	291 36	Terror.	8	−59 52
−60 01	241 31	Erebus.	5	−72 40	−57 11	292 14	Erebus.	6	−58 51
−59 17	245 40	Erebus.	5	−71 29	−56 37	294 34	Terror.	7	−59 02
−59 11	246 37	Terror.	10	−71 24	−56 40	294 46	Erebus.	5	−59 01
−59 15	248 12	Erebus.	5	−71 26	−54 48	297 21	Terror.	7	−56 48
−58 59	249 18	Erebus.	6	−71 04	−54 50	298 08	Erebus.	4	−56 10
−58 26	251 42	Terror.	7	−70 55	−52 54	300 27	Erebus.	5	−53 52
−58 29	252 18	Erebus.	5	−70 50	−52 34	300 10	Terror.	15	−53 25
−58 33	254 45	Terror.	7	−70 16	−52 03	301 56	Erebus.	3	−52 34
−58 35	255 10	Erebus.	5	−70 11	−51 42	301 36	Terror.	7	−52 04
−58 42	257 44	Terror.	10	−69 50	−51 32	301 53	Erebus.	8	−52 36*
−58 45	257 58	Erebus.	5	−69 47	−51 32	301 53	Terror.	25	−52 15*
−58 58	267 18	Terror.	8	−68 00					

* Observed on shore at the Falkland Islands; the Inclination with needles whose poles were reversed, was 52° 26′2.

General Table of the Intensity of the Magnetic Force, from the observations made on board Her Majesty's Ships Erebus and Terror, between April 1841 and August 1842.

Lat.	Long.	Ship.	No. of observations.	Intensity. London = 1·372.	Lat.	Long.	Ship.	No. of observations.	Intensity. London = 1·372.
−43° 00′	148° 28′	Erebus.	2	1·853	−43° 54′	183° 06′	Terror.	8	1·707
−43 03	148 20	Terror.	2	1·849	−45 39	183 18	Terror.	8	1·733
−42 13	149 29	Erebus.	2	1·823	−46 29	184 00	Erebus.	4	1·744
−42 24	149 30	Terror.	2	1·822	−47 26	184 37	Terror.	8	1·753
−40 54	149 13	Erebus.	2	1·818	−48 18	185 54	Terror.	10	1·772
−40 51	149 28	Terror.	2	1·814	−49 04	187 11	Erebus.	7	1·767
−38 17	150 22	Terror.	2	1·795	−49 05	186 54	Terror.	10	1·772
−37 31	151 09	Erebus.	3	1·769	−49 27	189 13	Erebus.	5	1·773
−37 28	151 30	Terror.	2	1·758	−49 24	187 23	Terror.	11	1·772
−34 35	151 30	Erebus.	3	1·734	−49 27	189 51	Terror.	14	1·775
−34 51	151 25	Terror.	3	1·738	−49 50	190 46	Terror.	10	1·766
−33 51	151 17	Erebus.	14	1·698*	−50 14	191 06	Erebus.	7	1·780
−33 51	151 17	Terror.	16	1·699*	−50 08	191 39	Terror.	6	1·771
−33 51	151 17	Erebus.	6	1·719	−50 42	192 11	Terror.	14	1·777
−33 51	151 17	Terror.	4	1·719	−51 34	194 29	Erebus.	5	1·806
−32 52	154 07	Erebus.	2	1·708	−51 37	194 00	Terror.	10	1·794
−33 57	153 35	Terror.	4	1·703	−52 13	197 03	Terror.	9	1·799
−33 51	157 18	Erebus.	2	1·680	−52 43	201 40	Erebus.	7	1·822
−33 56	156 38	Terror.	2	1·679	−52 52	204 31	Terror.	20	1·820
−33 27	160 43	Erebus.	2	1·668	−53 01	205 08	Erebus.	5	1·825
−33 31	160 20	Terror.	2	1·671	−53 31	206 14	Terror.	10	1·834
−33 38	163 42	Erebus.	2	1·655	−54 54	209 16	Terror.	13	1·814
−33 42	163 50	Terror.	4	1·658	−55 08	210 00	Erebus.	6	1·846
−33 41	166 23	Erebus.	2	1·638	−56 14	211 43	Terror.	8	1·836
−33 44	166 37	Terror.	5	1·627	−56 38	211 30	Erebus.	8	1·851
−33 22	167 40	Erebus.	2	1·630	−56 30	211 50	Terror.	10	1·841
−33 34	167 37	Terror.	5	1·600	−57 04	212 06	Terror.	8	1·843
−32 58	169 20	Erebus.	2	1·620	−58 08	212 40	Erebus.	4	1·866
−32 58	169 20	Terror.	4	1·604	−57 44	212 59	Terror.	8	1·863
−32 11	171 02	Terror.	6	1·589	−58 32	213 09	Terror.	14	1·878
−33 32	171 59	Erebus.	6	1·596	−58 45	213 19	Erebus.	7	1·888
−33 57	172 04	Terror.	6	1·601	−61 02	213 52	Terror.	14	1·892
−34 15	172 50	Terror.	5	1·597	−61 20	213 57	Erebus.	4	1·923
−34 24	173 43	Terror.	4	1·619	−62 34	212 34	Terror.	10	1·916
−35 16	174 00	Erebus.	26	1·607†	−62 40	212 53	Erebus.	2	1·937
		Terror.	24	1·608†	−63 21	209 37	Terror.	8	1·910
−35 16	174 00	Terror.	2	1·610	−63 23	210 02	Erebus.	2	1·952
−35 16	174 00	Erebus.	2	1·620	−63 23	210 02	Erebus.	2	1·938‡
−36 20	177 27	Terror.	4	1·616	−64 02	207 33	Terror.	8	1·927
−35 15	173 39	Erebus.	2	1·624	−63 47	208 26	Erebus.	6	1·945
−36 27	177 34	Erebus.	2	1·625	−64 49	206 36	Erebus.	8	1·948
−38 13	179 46	Terror.	8	1·634	−64 51	206 19	Terror.	8	1·943
−38 17	179 31	Erebus.	2	1·627	−65 26	205 04	Terror.	8	1·931
−38 54	182 05	Terror.	10	1·640	−66 00	204 09	Erebus.	15	1·971
−39 10	182 58	Erebus.	4	1·628	−65 50	204 12	Terror.	8	1·950
−40 02	183 02	Terror.	16	1·652	−66 33	203 28	Erebus.	4	1·981
−40 47	183 03	Erebus.	2	1·672	−66 09	203 51	Terror.	5	1·949
−41 34	183 40	Terror.	10	1·666	−66 09	204 26	Erebus.	11	1·970
−41 49	183 41	Erebus.	2	1·684	−66 07	204 00	Terror.	18	1·944
−42 40	183 46	Terror.	4	1·682	−66 10	203 58	Erebus.	12	1·973
−43 32	183 03	Erebus.	2	1·714	−65 57	203 56	Terror.	14	1·949

* On shore at Garden Island, Sydney.

† On shore at the Bay of Islands, New Zealand.

‡ Observed on ice.

General Table of the Intensity of the Magnetic Force. (Continued.)

Lat.	Long.	Ship.	No. of observations.	Intensity. London = 1·372.
−66° 03′	202° 29′	Terror.	12	1·945
−65 49	202 02	Erebus.	6	1·959*
−65 47	202 08	Terror.	10	1·948*
−67 16	203 40	Erebus.	8	1·976
−67 46	204 17	Terror.	10	1·960
−67 37	204 12	Terror.	10	1·965
−67 21	202 15	Erebus.	6	1·967
−67 12	202 24	Terror.	6	1·946
−67 15	201 34	Terror.	8	1·935
−68 08	199 57	Terror.	8	1·955
−68 29	199 55	Erebus.	9	1·991
−68 46	199 39	Terror.	13	1·961
−68 52	198 24	Terror.	10	1·966
−69 29	192 24	Erebus.	8	2·001
−70 00	191 36	Terror.	9	1·965
−70 14	196 16	Terror.	15	1·976
−70 18	185 16	Terror.	10	1·983
−70 23	185 33	Erebus.	8	1·996
−70 27	181 59	Terror.	8	1·988
−70 28	181 20	Erebus.	5	1·999
−72 41	181 41	Terror.	8	2·001
−72 46	181 46	Erebus.	4	1·989
−74 58	173 34	Terror.	10	2·008
−75 05	173 17	Erebus.	9	2·024
−75 42	174 14	Terror.	7	2·006
−76 33	180 09	Erebus.	6	2·021
−77 02	181 37	Terror.	4	2·007
−76 48	184 46	Terror.	4	2·009
−76 20	191 26	Terror.	4	2·024
−76 24	184 54	Terror.	4	2·004
−77 00	194 38	Erebus.	8	2·009
−77 13	193 52	Terror.	10	2·011
−77 47	197 25	Terror.	4	2·001
−77 14	199 29	Terror.	10	1·992
−75 20	194 36	Terror.	4	2·003
−74 50	193 45	Erebus.	2	1·999
−73 10	189 21	Terror.	4	2·000
−72 24	188 47	Erebus.	4	1·990
−72 03	187 40	Terror.	10	1·999
−71 34	186 09	Terror.	10	1·999
−71 08	184 59	Erebus.	4	2·009
−69 54	179 55	Terror.	4	1·999
−69 48	179 56	Erebus.	4	1·994
−68 09	183 10	Terror.	4	1·981
−68 04	183 25	Erebus.	4	1·981
−67 35	185 18	Terror.	10	1·978
−67 24	187 51	Terror.	8	1·981
−66 56	189 36	Erebus.	4	1·980
−65 17	191 58	Terror.	10	1·955
−63 30	194 15	Terror.	4	1·942
−63 05	195 18	Erebus.	6	1·941
−61 57	196 33	Terror.	14	1·916
−61 07	199 05	Erebus.	7	1·924
−60 19	203 42	Terror.	4	1·920
−60 16	207 52	Erebus.	4	1·881
−60 15	209 55	Terror.	8	1·907
−59 13	216 28	Terror.	4	1·910
−59 22	218 14	Terror.	4	1·900
−58 33	220 27	Erebus.	7	1·878
−58 49	221 25	Terror.	4	1·913
−59 01	227 43	Terror.	4	1·897
−59 29	231 53	Erebus.	6	1·890
−60 18	236 31	Erebus.	6	1·909
−60 05	235 56	Terror.	4	1·884
−60 17	236 38	Terror.	4	1·892
−60 20	237 55	Erebus.	4	1·907
−60 24	237 29	Terror.	4	1·907
−59 05	247 27	Terror.	4	1·875
−59 31	245 13	Erebus.	8	1·861
−58 26	251 42	Terror.	4	1·885
−58 33	254 45	Terror.	10	1·824
−58 36	255 30	Erebus.	7	1·821
−58 47	258 13	Terror.	8	1·832
−58 59	267 50	Terror.	4	1·783
−59 01	272 06	Terror.	4	1·747
−58 58	272 35	Erebus.	6	1·747
−58 24	276 18	Terror.	4	1·722
−58 27	280 20	Terror.	12	1·672
−58 27	282 04	Erebus.	5	1·652
−58 36	285 33	Terror.	4	1·648
−57 23	290 34	Terror.	8	1·592
−57 16	292 01	Erebus.	5	1·544
−55 42	295 57	Terror.	8	1·495
−56 03	295 54	Erebus.	3	1·478
−52 40	299 52	Terror.	9	1·355
−52 54	300 57	Erebus.	5	1·367
−52 05	301 39	Terror.	8	1·340
−51 32	301 53	Erebus.	24	1·333†
−51 32	301 53	Terror.	30	1·336†

* Observed on ice.

† On shore at the Falkland Islands.

Declinations observed on board Her Majesty's Ship Erebus, between June 1841 and August 1842.

The Observers are distinguished in the column of Initials as follows:—R. Captain Ross; S. Lieut. Sibbald; W. Lieut. Wood; T. Mr. Tucker, Master; Sm. Mr. Smith, and O. Mr. Oakley, Mates; Y. Mr. Yule, Second Master. East Declination is characterised by the sign—.

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
May 10	−42° 52′	147° 24′	R.	−10° 24′·5	Mean, 7 days' hourly observations with Declin. No. 1.						
19	Hobarton, Van Diemen Island.		R.	−10 24·3	Mean, 7 days' hourly observations with Declin. No. 2.					−10° 24′	At the Magnetic Observatory.
			R.	−10 36	N.	To obtain corrections for the ship's attraction.					
			R.	−11 24	N. by W.						
			R.	−12 11	N.N.W.						
			R.	−12 44	N. W. by N.						
			R.	−13 04	N.W.						
			R.	−13 22	N.W. by W.						
			R.	−14 01	W.N.W.						
			R.	−14 42	W. by N.						
			R.	−15 08	W.						
			R.	−15 06	W. by S.						
			R.	−14 51	W.S.W.						
			R.	−14 29	S.W. by W.						
			R.	−13 51	S.W.						
			R.	−13 08	S.W. by S.						
			R.	−12 25	S.S.W.						
			R.	−10 29	S. by W.						
June 29	At anchor.		R.	− 9 26	S.						
			R.	− 7 38	S. by E.						
			R.	− 7 03	S.S.E.						
			R.	− 6 19	S.E. by S.						
			R.	− 5 36	S.E.						
			R.	− 5 09	S.E. by E.						
			R.	− 4 24	E.S.E.						
			R.	− 4 49	E. by S.						
			R.	− 5 02	E.						
			R.	− 5 24	E. by N.						
			R.	− 6 04	E.N.E.						
			R.	− 6 24	N.E. by E.						
			R.	− 7 01	N.E.						
			R.	− 7 30	N.E. by N.						
			R.	− 8 40	N.N.E.						
			R.	− 9 32	N. by E.						
July 7 P.M.	−43 17	148 07	R.	− 5 33	E.S.E.	−70 50	−4 44	−10 17	−0 37	−10 06	
9 P.M.	−42 04	149 24	T.	−12 30	W.N.W.	−69 40	+3 49	− 8 41			
10 A.M.	−40 55	149 12	T.	−10 15	N. by W.	−68 40	+0 39	− 9 36	−0 37	− 9 51	
10 P.M.	−40 26	149 34	T.	− 8 52	N.		0 00	− 8 52			
11 P.M.	−37 49	150 21	R.	−10 47	N.		0 00	−10 47			
			R.	− 9 57	N.		0 00	− 9 57			
			T.	−10 56	N. by W.		+0 35	−10 21			
			T.	−10 55	N. by W.		+0 35	−10 20			
			R.	−10 54	N. by W.	−66 40	+0 35	−10 19	−0 37	−11 01	
			R.	−10 04	N.		0 00	−10 04			
			R.	−11 44	N.N.W.		+1 10	−10 34			
			S.	−11 53	N. by W.		+0 35	−11 18			
			T.	−11 17	N. by W.		+0 35	−10 42			
	−37 43	150 22	R.	−10 18	N. by W.		+0 35	− 9 43			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′ ″		° ′	° ′	° ′	° ′	° ′	
July 12 A.M.	−37 24	151 27	R.	− 6 30	N.E.		−2 10	− 8 40			
			R.	− 6 11	N.E.		−2 10	− 8 21			
			R.	− 5 39	N.E.		−2 10	− 7 49			
	−37 22	151 28	W.	− 7 53	N.N.E.		−1 07	− 9 00			
12 P.M.	−37 17	151 39	S.	− 6 06	N.E. $\frac{3}{4}$ E.		−2 34	− 8 40			
			S.	− 6 37	N.E.		−2 10	− 8 47			
	−37 16	151 37	Y.	− 9 36	N. by w.	−66 00	+0 34	− 9 02	−0 37	− 9 31	
			R.	− 8 34	N. by w.		+0 34	− 8 00			
			S.	− 9 33	N. by w.		+0 34	− 8 59			
			S.	− 9 45	N. by w.		+0 34	− 9 11			
			R.	− 9 29	N. by w.		+0 34	− 8 55			
	−37 11	151 37	T.	− 9 09	N.		0 00	− 9 09			
13 A.M.	−36 26	151 42	T.	−12 04	N.N.W.	−65 00	+1 03	−11 01			
Aug. 3	Garden Island, Sydney.		R.	− 9 51·5	.....	.....	.....	.....	.....	− 9 51·5	By the magnetometers on shore.
	−33 51	151 17									
6 A.M.	−33 54	153 50	S.	− 7 05	E.		−3 13	−10 18			
			T.	− 5 42	E. by N.	−62 40	−3 00	− 8 42	−0 37	−10 07	
8 P.M.	−33 30	160 56	S.	− 7 47	E. by N.		−2 50	−10 37			
			S.	− 7 58	E.		−3 03	−11 01			
			O.	− 7 54	E. by N.	−61 30	−2 50	−10 44			
			R.	− 8 21	E.		−3 03	−11 24			
			R.	− 6 30	E.		−3 03	− 9 33	−0 37	−12 02	
9 A.M.	−33 38	163 50	T.	−10 37	E.		−2 56	−13 13			
			R.	− 9 45	E.	−60 40	−2 56	−12 41			
			T.	− 9 23	E.		−2 56	−12 19			
10 A.M.	−33 42	166 25	R.	−12 53	N.N.E.		−0 48	−13 41			
			T.	−10 59	S.E. by E.		−2 50	−13 49			
			S.	− 9 55	E.		−2 52	−12 47			
			T.	− 9 28	E. by S.		−2 59	−12 27			
			W.	−11 20	E.S.E.	−60 10	−2 59	−14 19	−0 37	−13 34	
	−33 41	166 19	Sm.	− 8 55	E.		−2 52	−11 47			
10 P.M.	−33 39	166 34	O.	− 8 35	E. by N.		−2 39	−11 14			
			T.	−10 50	E. by N.		−2 39	−13 29			
11 A.M.	−33 32	167 34	R.	−11 56	N.E. by N.		−1 10	−13 06			
			T.	−10 46	E.S.E.		−2 56	−13 42			
			W.	−10 32	E. $\frac{1}{2}$ N.		−2 42	−13 14			
			O.	−10 51	E.S.E.	−59 40	−2 56	−13 47	−0 37	−13 27	
			Sm.	− 7 46	E. by S.		−2 56	−10 42			
			T.	−10 32	E.		−2 49	−13 21			
	−33 32	167 41	S.	− 9 03	E. by S.		−2 56	−11 59			
11 P.M.	−33 31	167 51	S.	−11 11	E.N.E.		−2 16	−13 27			
			R.	−11 04	E.N.E.		−2 16	−13 20			
			R.	−11 13	E.		−2 48	−14 01			
			O.	−10 48	E. by N.	−59 30	−2 42	−13 30			
			S.	− 9 45	E. by N.		−2 42	−12 27			
	−33 32	167 59	R.	−10 29	E. by N.		−2 42	−13 11	−0 37	−12 54	
15 A.M.	−33 55	171 58	T.	− 8 13	E. by S.		−2 47	−11 00			
			O.	− 8 02	E. $\frac{1}{2}$ S.		−2 44	−10 46			
			S.	− 8 33	E. $\frac{1}{2}$ S.	−58 10	−2 44	−11 17			
			T.	− 8 15	E. by S.		−2 47	−11 02			
	−33 54	171 58	R.	− 8 22	E. by S. $\frac{1}{2}$ S.		−2 47	−11 09			
16 A.M.	−34 25	172 51	Y.	−14 11	N.N.W. $\frac{1}{2}$ W.		+0 53	−13 18			
			Y.	−13 09	N.W. $\frac{1}{2}$ W.		+1 38	−11 31			
			Y.	−14 46	N.W. by N.		+1 04	−13 42			
			T.	−14 58	N.W. $\frac{1}{2}$ N.	−58 10	+1 14	−13 44	−0 37	−13 56	

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
Aug. 17 A.M.	−34 15	173 12	T.	−11 14	E. by S.	−58 10	−2 48	−14 02	−0 37	−13 56	
17 P.M.	−34 37	173 55	S.	−10 11	E.S.E.		−2 48	−12 59			
			O.	−11 20	E.S.E.		−2 48	−14 08			
			R.	−10 18	E.S.E.		−2 48	−13 06			
			R.	−10 39	E. by S. ½ S.		−2 48	−13 27			
			O.	− 9 25	E. by S. ½ S.		−2 48	−12 13			
			R.	−11 27	E. by S.		−2 48	−14 15			
Aug. & Sept.	Bay of Islands.										By the magnetometers on shore.
	−35 16	174 00	R.	−13 36	.....	.....	.....	.....	.....	−13 36	
Nov. 24 A.M.	−36 27	177 20	SM.	− 8 57	E.S.E.		−2 45	−11 42			
		177 21	O.	− 8 51	E.S.E.		−2 45	−11 36			
24 P.M.	−36 34	177 47	S.	−10 45	S.E. by E.		−2 36	−13 21			
		177 56	S.	−11 46	S.E. by E.		−2 36	−14 22			
	−36 40	177 58	O.	−11 52	S.E. by E.		−2 36	−14 28			
	−36 42	178 08	R.	− 9 47	S.E. by E.	−59 40	−2 36	−12 23	−1 20	−14 24	
	−36 44	178 10	R.	−10 38	S.E. by E.		−2 36	−13 14			
			T.	−10 19	S.E. by E.		−2 36	−12 55			
			T.	−11 20	S.E. by E.		−2 36	−13 56			
	−36 50	178 18	R.	−10 13	S.E. by E.		−2 36	−12 49			
			R.	−10 27	S.E. by E.		−2 36	−13 03			
25 A.M.	−37 59	179 37	T.	−11 54	S.E. by S.		−1 56	−13 50			
			SM.	−11 11	S.E. by S.		−1 56	−13 07			
	−38 01	179 40	T.	−11 07	S.E. ½ S.		−2 09	−13 16			
			SM.	−10 29	S.E. by S.	−60 14	−1 56	−12 25			
			O.	−11 42	S.E. ½ S.		−2 09	−13 51			
			S.	−10 06	S.E.		−2 22	−12 28			
	−38 03	179 41	T.	−11 15	S.E. ½ S.		−2 09	−13 24	−1 20	−14 44	
25 P.M.	−38 22	180 10	R.	−10 43	E.S.E.		−2 49	−13 32			
			Y.	−10 19	S.E. ½ E.		−2 32	−12 51			
	−38 27	180 02	R.	−11 09	S.E. ½ E.		−2 32	−13 41			
			R.	−11 26	S.E. by E.	−60 20	−2 40	−14 06			
			T.	−10 06	S.E. by E. ½ E.		−2 44	−12 50			
			R.	−11 39	S.E. by E.		−2 40	−14 17			
26 P.M.	−39 04	182 29	O.	−11 29	S.E. by E.		−2 44	−14 13			
			T.	−10 10	S.E. ½ E.		−2 35	−12 45			
			T.	−11 05	S.E. by E.		−2 44	−13 49			
	−39 05	182 32	R.	−10 37	S.E. by E. ½ E.		−2 49	−13 26			
			R.	− 9 39	E.S.E.	−61 05	−2 53	−12 32			
			R.	−10 36	S.E. by E.		−2 44	−13 20			
	−39 08	182 36	T.	− 9 49	S.E. by E.		−2 44	−12 33	−1 20	−14 43	
	−39 09	182 40	R.	− 9 49	E.S.E.		−2 53	−12 42			
27 A.M.	−39 16	182 59	T.	−11 47	N.E. by E.		−1 58	−13 45			
			SM.	−11 09	S.E. by E.		−2 48	−13 57			
			S.	−12 33	N.	−61 42	0 00	−12 33			
			T.	−12 30	N.N.E. ¼ E.		−0 53	−13 23			
	−39 17	182 58	O.	−12 41	N.N.E. ½ E.		−0 58	−13 39			
28 A.M.	−40 23	183 04	S.	−12 02	S. by E.		−0 45	−12 47			
	−40 27	183 03	T.	−11 20	S. by E.		−0 45	−12 05			
28 P.M.	−40 22	183 14	R.	− 9 10	S.S.E. ½ E.		−1 46	−10 56			
	−40 57		T.	− 9 32	S.S.E.		−1 27	−10 59			
		183 16	R.	− 8 46	S.E. by S.		−2 04	−10 50			
			O.	− 8 53	S.E. ½ S.	−62 12	−2 17	−11 10	−1 20	−12 57	
	−41 07	183 22	R.	− 9 34	S.E.		−2 31	−12 05			
			S.	−10 10	S.E.		−2 31	−12 41			
	−41 09	183 23	R.	−10 33	S.S.E.		−1 26	−11 59			
	−41 10	183 24	R.	− 9 12	S.E. by S.		−2 03	−11 15			
	−41 11	183 25	R.	− 8 56	S.E. by S.		−2 03	−10 59			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Nov. 29 A.M.	−41 28	183 41	Y.	−15 20	W.S.W.		+3 09	−12 11			
			T.	−14 41	S.W. ½ S.		+2 23	−12 18			
			T.	−11 59	S. by E.		−0 47	−12 46			
			T.	−12 55	S. by E.	−63 20	−0 47	−13 42			
	−41 30	183 43	T.	−13 02	S. by E.		−0 47	−13 49			
			S.	−10 38	S. by E.		−0 47	−11 25	−1 20	−14 24	
			T.	−12 15	S. by E.		−0 47	−13 02			
	−41 31	183 40	O.	−13 14	S. by E.		−0 47	−14 01			
30 A.M.	−43 28	183 04	R.	−13 23	S. ¼ E.		−0 16	−13 39			
			T.	−14 02	S.	−65 00	0 0	−14 02			
	−43 30	183 03	O.	−12 49	S.		0 0	−12 49			
Dec. 1 A.M.	−45 30	183 15	T.	−12 16	S.E. by E. ½ E.		−3 24	−15 40			
			W.	−11 47	S.E. by E.		−3 18	−15 05			
			Y.	−13 08	S.E. by E.		−3 18	−16 26			
	−45 32	183 11	T.	−11 02	S.E. by E. ½ E.	−66 30	−3 24	−14 26			
			W.	−10 22	S.E. by E.		−3 18	−13 40			
		183 15	S.	−12 26	S.E. by E.		−3 18	−15 44			
2 A.M.	−46 40	184 18	T.	−12 30	S.E. by E. ½ E.		−3 44	−16 14	−1 20	−16 35	
			W.	−11 54	S.E. by E.		−3 36	−15 30			
			Y.	−10 33	S.E. by E.		−3 36	−14 09			
			Sm.	−11 24	S.E. by E.	−67 55	−3 36	−15 00			
			T.	−12 31	S.E. by E. ½ E.		−3 44	−16 15			
			T.	−11 33	E.S.E.		−3 52	−15 25			
	−46 45	183 13	Sm.	−11 07	S.E. by E.		−3 36	−14 43			
2 P.M.	−47 26	184 42	S.	−11 28	E. by S.		−3 57	−15 25			
	−47 31	184 50	T.	−11 00	S.E. ½ E.		−3 24	−14 24			
			T.	−11 29	S.E. by E. ½ E.		−3 44	−15 13			
	−47 32	184 53	T.	−10 36	S.E. by E.		−3 36	−14 12			
			W.	−11 28	S.E. ½ E.		−3 24	−14 52			
			S.	−11 32	S.E. by E.	−67 55	−3 36	−15 08	−1 20	−15 45	
			T.	−10 43	S.E. by E.		−3 36	−14 19			
			O.	−11 07	S.E. ½ E.		−3 24	−14 31			
	−47 34	184 55	R.	−10 27	S.E. ¾ E.		−3 30	−13 57			
			R.	− 9 25	S.E. by E.		−3 36	−13 01			
	−47 38	185 00	R.	− 9 47	S.E. by E. ½ E.		−3 44	−13 31			
3 P.M.	−48 50	186 47	S.	−12 19	N.E. by E. ½ E.		−3 11	−15 30			
			S.	−11 26	E.S.E.		−4 04	−15 30			
			T.	−11 35	E. ½ N.		−3 52	−15 27			
	−48 53	186 49	R.	−10 25	S.E. by E.		−3 47	−14 12			
			R.	−11 01	S.E. by E.		−3 47	−14 48			
			O.	−10 53	S.E. by E. ½ E.		−3 55	−14 48			
			Sm.	−11 32	S.E. by E.		−3 47	−15 19			
	−48 50	186 44	Y.	−10 48	S.E. by E. ½ E.	−69 05	−3 55	−14 43	−1 20	−16 23	
			T.	−10 49	S.E. by E.		−3 47	−14 36			
	−48 51	186 44	W.	−10 59	S.E. by E.		−3 47	−14 46			
			S.	−11 20	S.E. by E.		−3 47	−15 07			
			R.	−10 23	E.S.E.		−4 04	−14 27			
	−48 54	186 46	T.	−10 49	E.S.E.		−4 04	−14 53			
	−48 55	186 52	R.	−11 42	S.E. by E.		−3 47	−15 29			
	−48 56	186 53	R.	−12 35	S.E. ½ E.		−3 33	−16 08			
4 A.M.	−49 10	187 32	R.	−12 52	E. by S.		−4 18	−17 10			
5 A.M.	−49 32	188 59	T.	−11 28	E. by S.		−4 18	−15 46			
			O.	−11 12	E. by S.		−4 18	−15 30			
			S.	−13 13	E. by S.		−4 18	−17 31			
5 P.M.	−49 31	189 20	S.	−13 21	E. by S.	−69 40	−4 18	−17 39	−1 20	−17 51	
			W.	−11 45	E. by S.		−4 18	−16 03			
			T.	−12 35	E. by S.		−4 18	−16 53			
	−49 32	189 28	R.	−11 28	E.		−4 07	−15 35			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 6 A.M.	−49 57	191 06	R.	−11 47	E. by S.		−4 18	−16 05			
			R.	−12 34	E. by S.		−4 18	−16 52			
			T.	−12 58	E. by S.		−4 18	−17 16			
			O.	−13 50	E. by S.		−4 18	−18 08			
	−50 04	191 15	S.	−13 13	E. by S.		−4 18	−17 31			
6 P.M.	−50 03	191 38	T.	−14 25	N.E. $\frac{3}{4}$ E.		−2 52	−17 17			
			T.	−14 02	E. by N.	−69 37	−3 53	−17 55	−1 20	−18 23	
			T.	−15 52	N.E. by N.		−1 54	−17 46			
			S.	−12 37	E.S.E.		−4 12	−16 49			
	−50 04	191 40	T.	−13 40	E. by S. $\frac{1}{2}$ S.		−4 15	−17 55			
		191 44	R.	−11 21	E.S.E.		−4 12	−15 33			
	−50 06	191 56	S.	−11 44	S.E. $\frac{1}{2}$ E.		−3 40	−15 24			
7 A.M.	−50 36	192 00	Sm.	−15 43	S. by E. $\frac{3}{4}$ E.		−1 40	−17 23			
	−50 51	192 20	S.	−13 39	E.S.E.		−4 14	−17 53			
	−50 54	192 40	R.	−13 51	S.E. $\frac{1}{2}$ S.		−3 06	−16 57			
		192 45	T.	−13 58	S.E.	−69 49	−3 26	−17 24	−1 20	−18 18	
			R.	−12 42	S.E. $\frac{1}{2}$ E.		−3 40	−16 22			
	−50 56	192 44	R.	−12 24	S.E.		−3 26	−15 50			
8 A.M.	−51 30	193 57	T.	−11 39	E. by S.		−4 25	−16 04			
	−51 31	194 00	T.	−11 54	E. by S.		−4 25	−16 19			
			W.	−11 28	E. by S.		−4 25	−15 53			
			W.	−11 27	E. by S.	−70 11	−4 25	−15 52			
			T.	−12 48	E. by S.		−4 25	−17 13			
			Sm.	−13 15	E. by S.		−4 25	−17 40			
	−51 31	194 03	O.	−12 32	E. by S.		−4 25	−16 57			
8 P.M.	−51 41	195 04	T.	− 8 21	E. $\frac{1}{2}$ S.		−4 20	−12 41			
			O.	− 8 34	E. $\frac{1}{2}$ S.		−4 20	−12 54	−1 20	−15 16	
			S.	− 9 39	E. $\frac{1}{2}$ S.		−4 20	−13 59			
			T.	− 9 54	E. $\frac{1}{2}$ S.		−4 20	−14 14			
	−51 45	195 26	R.	− 8 29	E. $\frac{1}{2}$ S.		−4 20	−12 49			
			T.	− 8 27	E. $\frac{1}{2}$ S.	−70 11	−4 20	−12 47			
	−51 46		W.	− 9 09	E. $\frac{1}{2}$ S.		−4 20	−13 29			
			R.	− 8 48	E. $\frac{1}{2}$ S.		−4 20	−13 08			
	−51 47	195 37	R.	− 8 07	E. by S.		−4 25	−12 32			
			T.	− 8 24	E. by S.		−4 25	−12 49			
	−51 49	195 46	R.	− 8 06	E. by S.		−4 25	−12 31			
9 A.M.	−52 26	198 23	T.	− 9 29	E. by S.			−13 59			
			R.	− 9 09	E. by S.	−70 27	−4 30	−13 39			
			O.	− 9 17	E. by S.			−13 47			
11 P.M.	−52 50	204 00	T.	− 8 01	E. $\frac{1}{2}$ N.		−4 15	−12 16			
			S.	− 9 04	E. $\frac{3}{4}$ N.		−4 12	−13 16			
			O.	− 8 14	E. $\frac{1}{4}$ S.		−4 25	−12 39	−1 20	−13 58	
			T.	− 7 05	E.	−70 38	−4 22	−11 27			
			R.	− 6 22	E.S.E.		−4 27	−10 49			
			T.	− 7 35	E.S.E.		−4 27	−12 02			
		203 15	W.	− 7 58	E.S.E.		−4 27	−12 25			
12 A.M.	−53 10	205 15	Sm.	− 6 47	E.S.E.		−4 20	−11 07			
			Y.	− 7 35	E.S.E.		−4 20	−11 55			
			O.	− 7 37	E.S.E.		−4 20	−11 57			
			S.	− 7 55	E.S.E.		−4 20	−12 15			
	−53 04	205 18	T.	− 7 21	E.S.E.		−4 20	−11 41			
			O.	− 7 23	E.S.E.		−4 20	−11 43			
			R.	− 7 23	E.S.E.	−70 11	−4 20	−11 43	−1 20	−13 06	
			T.	− 7 22	E.S.E.		−4 20	−11 42			
			R.	− 7 15	E.S.E.		−4 20	−11 35			
			T.	− 8 08	E.S.E.		−4 20	−12 28			
			W.	− 7 14	E.S.E.		−4 20	−11 34			
12 P.M.	−53 22	206 10	R.	− 7 19	S.E. by E. $\frac{1}{2}$ E.		−4 10	−11 29			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 13 A.M.	−54 45	209 02	S.	− 7 35	E.S.E.		−4 27	−12 02			
			T.	− 7 51	S.E. by E. ½ E.		−4 17	−12 08			
	−54 46	209 07	R.	− 7 18	S.E. by E. ½ E.		−4 17	−11 35			
			T.	− 7 06	S.E. by E. ½ E.		−4 17	−11 23			
	−54 48	209 10	W.	− 7 40	S.E. by E.	−70 47	−4 07	−11 47	−1 20	−14 26	
			R.	−10 24	S.E. by E. ½ E.		−4 17	−14 41			
13 P.M.	−55 16	210 14	S.	−11 36	S.E. by E.		−4 07	−15 43			
	−55 17	210 20	S.	−11 20	S.E. by E.		−4 07	−15 27			
14 A.M.	−56 06	211 33	T.	−12 31	S.E. by S.		−3 03	−15 34			
	−56 04		Y.	−12 14	S.E. by S.		−3 03	−15 17			
	−56 10	211 44	T.	−11 45	S.E. by S.		−3 03	−14 48			
			Sm.	−12 52	S.E. by S.		−3 03	−15 55			
	−56 15	211 49	R.	−11 57	S.E. by S.	−72 00	−3 03	−15 00	−1 20	−15 43	
14 P.M.	−56 22	211 56	T.	− 8 36	E. ¼ N.		−4 35	−13 11			
			S.	− 9 02	E.N.E.		−4 02	−13 04			
			T.	− 9 44	E.N.E.		−4 02	−13 46			
			T.	−10 01	N.E.		−2 54	−12 55			
			S.	− 9 03	N.E. ½ E.		−3 13	−12 16			
			S.	− 8 11	E. ½ N.		−4 35	−12 46			
		211 58	R.	− 8 51	E.N.E.		−4 02	−12 53			
			W.	− 8 51	E. by N.		−4 27	−13 18			
	−56 23	211 59	R.	− 8 37	S.E. by S.	−72 00	−3 03	−11 40	−1 20	−13 50	
			T.	− 9 10	S.E. by S.		−3 03	−12 13			
			W.	− 9 02	S.E. by S.		−3 03	−12 05			
			T.	− 9 31	S.E. by S.		−3 03	−12 34			
	−56 24	211 59	W.	− 9 44	S.E. by S.		−3 03	−12 47			
15 A.M.	−56 50	212 12	T.	−11 01	S. by E. ½ E.		−1 40	−12 41			
			Sm.	−11 34	S. by E.		−1 08	−12 42			
			Y.	−10 29	S.S.E.		−2 13	−12 42			
			T.	−10 25	S.S.E.		−2 13	−12 38			
			S.	− 9 31	S.S.E.	−72 39	−2 13	−11 44	−1 20	−13 32	
	−56 59	212 41	O.	− 9 21	S.E. by S.		−3 09	−12 30			
			R.	− 8 24	S.E. by S.		−3 09	−11 33			
	−57 01	212 42	R.	− 7 56	S.E. by S.		−3 09	−11 05			
15 P.M.	−57 13	212 45	T.	− 9 41	S.S.E.		−2 10	−11 51			
			S.	− 9 43	S.S.E.		−2 10	−11 53			
			W.	− 9 36	S.S.E.		−2 10	−11 46			
			R.	− 9 45	S.S.E.		−2 10	−11 55			
	−57 14	212 45	T.	− 9 28	S.S.E.		−2 10	−11 38			
			R.	− 9 51	S.S.E.		−2 10	−12 01			
			Y.	−11 51	S.S.E.	−72 12	−2 10	−14 01	−1 20	−13 54	
	−57 16	212 45	T.	−10 12	S.S.E.		−2 10	−12 22			
			T.	− 9 11	E.N.E.		−4 05	−13 16			
			S.	− 8 07	E.N.E.		−4 05	−12 12			
			S.	− 9 29	E.S.E.		−4 47	−14 16			
			S.	− 8 53	S.E.		−3 51	−12 44			
	−57 19	212 47	R.	−11 12	S.S.E.		−2 10	−13 22			
16 A.M.	−58 12	213 09	S.	− 9 20	S.S.E.						
	−58 13	213 08	T	− 9 27	S.S.E.						
			O.	− 9 44	S.S.E.						
			S.	−10 37	S.S.E.						
	−58 15	213 08	T.	−10 08	S.S.E.						
			Y.	−10 47	S.S.E.	−73 55	−2 21	−13 12	−1 20	−14 37	
			T.	−11 56	S.S.E.						
	−58 21	213 17	R.	−12 32	S.S.E.						
			W.	−11 17	S.S.E.						
			R.	−12 08	S.S.E.						
	−58 25	213 06	R.	−11 28	S.S.E.						
17 A.M.	−60 02	213 45	S.	−11 32	S.S.E.	−75 40	−2 40	−14 12			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 18 A.M.	−62 40	212 49	T.	−17 18	S. ½ E.		−0 44	−18 02			
			R.	−19 25	S. by W.		+1 28	−17 57			
			W.	−19 14	S. ¼ W.		+0 22	−18 52			
	−62 45	212 44	R.	−20 47	S. by W.		+1 28	−19 19			
			SM.	−19 54	S. ½ W.		+0 44	−19 10			
18 P.M.	−62 50	211 46	R.	−26 11	S.W. ½ W.		+5 30	−20 41			
	−62 53	211 34	R.	−25 40	S.W. ½ W.	−76 49	+5 30	−19 10	−1 20	−20 14	
	−62 56	211 20	R.	−23 59	S.W. ½ W.		+5 30	−18 29			
			T.	−23 47	S W. ½ W.		+5 30	−18 17			
			W.	−25 11	S.W. ¾ W.		+5 41	−19 30			
			R.	−21 25	S.S.W.		+2 57	−18 28			
	−62 57	211 20	R.	−21 49	S.S.W.		+2 57	−18 52			
19 A.M.	−63 19	210 25	S.	−23 12	S.W.		+5 27	−17 45			
	−63 20	210 22	O.	−23 26	S.S.W. ½ W.		+3 45	−19 41			
			W.	−23 32	S.S.W. ½ W.		+3 45	−19 47			
			T.	−23 34	S.W. by S.	−77 40	+4 25	−19 09	−1 20	−20 39	
			T.	−22 11	S.S.W.		+3 11	−19 00			
	−63 19	210 17	R.	−22 07	S. by W.		+1 33	−20 34			
	−63 23	210 05	R.	−19 19				−19 19	−0 06		H 162
			R.	−20 43				−20 43	−0 28		H 167
			R.	−22 35	Observed	−77 36	.....	−22 35	+1 00	−19 59	H 166
			R.	−18 24	on ice.			−18 24	−0 06		H 162
			R.	−18 44				−18 44	−0 28		H 167
19 P.M.	−63 23	210 05	S.	−13 00	E.N.E.		−6 07	−19 07			
			T.	−13 39	E. by N.		−6 40	−20 19			
			T.	−26 28	W.S.W.		+6 46	−19 42			
			T.	−21 32	S. by W. ¾ W.		+2 44	−18 48			
			S.	−23 31	S.S.W. ¼ W.		+3 27	−20 04			
			T.	−23 58	S. 42° W.		+5 10	−18 48			
			S.	−24 37	S.W.		+5 25	−19 12			
			S.	−26 46	S.W. by W. ½ W.	−77 36	+6 22	−20 24	−1 20	−20 44	
			T.	−21 44	S. 22° W.		+3 07	−18 37			
			T.	−24 23	S. 42° W.		+5 10	−19 13			
			T.	−23 43	S. 33° W.		+4 18	−19 25			
			S.	−23 21	S.W. by S.		+4 21	−19 00			
			T.	−25 01	S. 54° W.		+6 20	−18 41			
	−63 24	209 39	T.	−27 10	W.S.W.		+6 47	−20 23			
20 A.M.	−63 36	208 45	S.	−23 40	S.W. by S.		+4 39	−19 01			
			O.	−23 49	S.S.W.		+3 17	−20 32			
	−63 52	208 00	T.	−23 16	S. by W. ½ W.		+2 29	−20 47			
21 A.M.	−64 39	206 55	T.	−19 00	S. ½ E.		−0 50	−19 50			
	−64 48	206 18	S.	−18 26	S.S.E.		−3 17	−21 43			
			T.	−18 31	S. by E.	−78 30	−1 40	−20 11	−1 20	−22 00	
			W.	−18 08	S. by E. ½ E.		−2 29	−20 37			
			T.	−20 30	S.		0 0	−20 30			
			S.	−21 18	S.		0 0	−21 18			
	−64 49	206 10	R.	−25 18	S.W. by S.		+4 39	−20 39			
	−64 50	206 05	W.	−20 29	S. by E.		−1 40	−22 09			
			T.	−19 35	S. ½ E.		−0 51	−20 26			
			R.	−21 56	S. ¾ W.		+1 16	−20 40			
	−64 54	206 06	R.	−19 25	S. ¾ E.		−1 16	−20 41			
	−64 56	206 04	R.	−18 54	S. by E.		−1 40	−20 34			
			R.	−22 38	S. 11° E.	−78 50	−1 36	−24 14	−1 20	−22 51	
			R.	−20 24	S. 9° E.		−1 18	−21 42			
			R.	−17 56	S. 8° E.		−1 09	−19 05			
			R.	−23 07	S. 11° E.		−1 36	−24 43			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 22 A.M.	−65 14	206 07	S.	−22 02	S. ¾ W.		+1 20	−20 42			
			O.	−24 24	S. by W. ½ W.		+2 38	−21 46			
	−65 13	205 55	T.	−22 14	S. by W.		+1 47	−20 27			
			S.	−22 39	S. by W.	−79 20	+1 47	−20 52	−1 20	−21 51	
	−65 13	205 47	Y.	−22 02	S. by W.		+1 47	−20 15			
			O.	−20 44	S. by W.		+1 47	−18 57			
			T.	−22 13	S. by W.		+1 47	−20 26			
			T.	−22 58	S. by W. ¼ W.		+2 14	−20 44			
	−65 16	206 00	W.	−23 00	S.S.W.		+3 28	−19 32			
			W.	−19 56	S.		0 0	−19 56			
	−65 21	206 08	R.	−22 43	S. ½ W.		+0 53	−21 50			
	−65 23	206 06	R.	−23 11	S. ½ W.		+0 53	−22 18			
22 P.M.		205 50	S.	−18 11	S.S.E.	−79 20	−3 28	−21 39	−1 20	−22 46	
	−65 38	205 47	T.	−21 14	S. ½ W.		+0 26	−20 48			
	−65 39	205 44	Y.	−22 02	S.		0 0	−22 02			
	−66 00	205 46	R.	−21 18	N. by E. ½ E.		−2 06	−23 24			
24 P.M.	−65 59	203 47	T.	−27 28	S.S.W.		+3 35	−23 53			
25 P.M.	−66 01	203 56	T.	−26 45	N.W. by N.		+4 20	−22 25			
			T.	−14 34	S.E. by E. ½ E.	−79 45	−7 50	−22 24	−1 20	−24 13	
27 A.M.	−66 16	203 44	S.	−14 42	E.S.E.		−8 10	−22 52			
28 A.M.	−66 17	203 36	S.	−16 17	E. by N. ½ N.		−8 02	−24 19			
			T.	−30 17	S.W. by S.		+5 17	−25 00			
			T.	−29 00	S.S.W. ½ W.		+4 28	−24 32			
			R.	−30 56	S.W.		+6 39	−24 17			
			W.	−30 50	S.W.		+6 39	−24 11			
29 A.M.	−66 24	203 51	W.	−31 36	W.N.W.	−80 00	+7 43	−23 53	−1 20	−25 36	
			T.	−31 41	W.N.W.		+7 43	−23 58			
			T.	−30 30	N.W. ½ W.		+6 18	−24 12			
29 P.M.	−66 25	203 51	S.	−17 13	E. by N. ½ N.		+8 02	−25 15			
			R.	−31 25	S.W. by W. ½ W.		+8 02	−23 23			
30 P.M.	−66 31	203 06	T.	−30 38	S.W.		+6 39	−23 59			
1842.											
Jan. 6 P.M.	−66 04	203 17	R.	−26 58	S. ¼ W.		+0 28	−26 30			
			SM.	−26 38	S. ½ W.		+0 56	−25 42			
			R.	−28 16	S. by W. ¼ W.		+2 20	−25 56			
			SM.	−28 38	S. by W. ½ W.	−79 56	+2 46	−25 52	−1 20	−26 59	
			R.	−23 42	N. by E.		−1 33	−25 14			
			R.	−27 26	N. by W. ¼ W.		+1 54	−25 32			
			T.	−27 14	N. by W. ½ W.		+2 16	−24 58			
	−66 05	203 13	T.	−30 55	N.W. ¼ N.		+6 26	−25 29			
7 P.M.	−66 20	204 19	T.	−32 04	N.W. ½ W.		+6 07	−25 57			
				−32 41	N.W. ½ W.		+6 07	−26 37			
8 P.M.	−66 14	204 48	R.	−32 34	S.W. by W.		+7 31	−25 03			
	−66 15	204 50	R.	−16 07	E. by S.	−79 45	−8 28	−24 35	−1 20	−26 36	
			R.	−33 01	S.W. by W.		+7 31	−25 30			
		204 49	R.	−28 21	S.S.W. ½ W.		+4 26	−23 56			
9 A.M.	−66 12	204 26	SM.	−16 58	E.		−8 25	−25 23			
			O.	−16 49	S.E. by E. ½ E.		−7 55	−24 44			
	−66 15	204 26	S.	−16 50	E. by S. ½ S.		−8 24	−25 14			
		204 23	T.	−31 46	S.W.		+6 33	−25 13			
			O.	−30 14	S.W. ½ S.		+5 54	−24 20			
			S.	−17 09	E. ½ S.	−79 52	−8 26	−25 35	−1 20	−25 55	
			T.	−15 31	E. by S. ½ S.		−8 24	−23 55			
			Y.	−15 38	E. ½ S.		−8 26	−24 04			
			W.	−14 22	E. by S. ½ S.		−8 24	−22 46			
	−66 16	204 24	T.	−16 12	E. by S. ½ S.		−8 24	−24 36			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Jan. 9 P.M.	−66 05	204 22	T.	−30 35	S.W. ½ S.		+5 54	−24 42			
			R.	−32 12	W.S.W.		+8 15	−23 57			
			T.	−31 41	S.W. ½ W.		+7 04	−24 37			
			T.	−33 36	W. by S. ¼ S.		+8 28	−25 08			
			T.	−31 17	S.W. ¼ W.		+6 48	−24 29			
			S.	−30 16	S.W.		+6 33	−23 43			
	−66 03	204 25	T.	−15 20	S.E. by E. ½ E.		−7 55	−23 15			
			T.	−16 04	E. by S. ½ S.		−8 24	−24 28			
	−66 04	204 17	R.	−17 33	S.E. ¼ S.	−79 52	−6 14	−23 47	−1 20	−25 48	
		204 14	R.	−32 25	S.W. by W. ¾ W.		+8 05	−24 20			
			T.	−32 10	S.W. by W.		+7 35	−24 35			
			R.	−16 55	S.E. by E. ¾ E.		−8 05	−25 00			
	−66 06	204 11	T.	−17 02	S.E. by E.		−7 35	−24 37			
			R.	−33 07	S.W. by W. ½ W.		+7 55	−25 12			
			Sm.	−33 10	W.S.W.		+8 15	−24 55			
			R.	−16 37	E. by N.		−8 15	−24 52			
10 A.M.	−66 00	204 08	S.	−17 38	S.E.		−6 28	−24 06			
			O.	−17 28	S.E. ¼ E.		−6 44	−24 12			
			S.	−17 30	S.E. ¼ E.		−6 44	−24 14			
	−65 58	204 11	T.	−15 30	E. by S.		−8 31	−24 01			
			Y.	−15 21	E. by S.		−8 31	−23 52			
			W.	−17 02	S.E. by E. ½ E.	−79 48	−7 50	−24 52	−1 20	−25 26	
			T.	−16 03	S.E. by E. ½ E.		−7 50	−23 53			
			T.	−31 55	W. by S. ½ S.		+8 18	−23 37			
			W.	−32 25	W.S.W.		+8 09	−24 16			
			Y.	−31 49	W.S.W.		+8 09	−23 40			
	−66 04	204 18	T.	−31 50	S.W. by W.		+7 31	−24 19			
10 P.M.	−65 58	204 14	R.	−16 36	S.E. by E.		−7 31	−24 07			
			T.	−15 49	S.E. by E. ¾ E.		−8 00	−23 49			
			T.	−32 23	W. by S.		+8 31	−23 52			
	−65 58	204 16	T.	−27 46	S.S.W.		+3 37	−24 09			
			O.	−32 16	S.W. by W.		+7 31	−24 45			
	−65 57		R.	−16 26	E. by S. ¼ S.		−8 25	−24 51			
			T.	−16 15	E. by S.	−79 48	−8 31	−24 46	−1 20	−25 24	
			T.	−31 12	S.W. by W.		+7 31	−23 41			
			W.	−32 18	S.W.		+6 28	−25 50			
			R.	−30 27	S.W. ¼ S.		+6 10	−24 17			
		204 13	R.	−29 31	S.W. ¾ S.		+5 30	−24 01			
			R.	−30 14	S.W. ½ S.		+5 50	−24 24			
	−65 58	204 10	R.	−32 13	W. by S. ¾ S.		+8 18	−23 55			
11 A.M.	−66 01	203 51	Sm.	−21 04	S. by E.		−1 52	−22 56			
	−65 56	203 44	Y.	−19 51	S.E. by S.		−5 12	−25 03			
			T.	−26 27	S. by W. ¼ W.		+2 16	−24 43			
			Y.	−27 21	N.N.W. ½ W.		+3 40	−23 41			
			T.	−31 34	N.W. by W. ½ W.		+7 07	−24 27			
12 A.M.	−65 52	203 45	T.	−31 42	S.W. by W.		+7 31	−24 11			
			R.	−31 52	S.W. by W.		+7 31	−24 21			
			W.	−31 58	W. by S. ¾ S.	−79 48	+8 18	−23 40			
12 P.M.	−65 56	203 24	R.	−26 53	S.S.W.		+3 37	−23 16	−1 20	−24 58	
			T.	−27 00	S.S.W.		+3 37	−23 23			
			T.	−23 49	S.		0 0	−23 49			
			S.	−22 48	S.		0 0	−22 48			
		203 29	T.	−22 36	S. ¾ E.		−1 24	−24 00			
	−65 57	203 26	R.	−20 23	S. by E.		−1 52	−22 15			
14 A.M.	−66 10	202 50	Sm.	−24 36	S. by W.		+1 52	−22 44			
			Sm.	−22 06	S. ¾ E.	−79 43	−1 24	−23 30			
			T.	−15 17	E. by N. ¾ N.		−7 40	−22 57			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	°	
Jan. 16 P.M.	−65 47	202 13	R.	−22 19				−22 19	−3 03		R
			R.	−26 36				−26 36	−0 05		H 162
			R.	−24 45	Observed			−24 45	−0 28		H 167
			R.	−24 00	on ice.	.....	.....	−24 00	−1 20	−25 15	CCL
			R.	−23 16				−23 16	−1 20		CCL
			R.	−22 58				−22 58	−1 20		CCH
28 P.M.	−67 39	204 24	T.	−29 56	N. by W. ½ W.		+2 25	−27 31			
			T.	−19 02	S.S.E. ½ E.		−4 44	−23 46			
		204 28	R.	−36 04	W. by N. ¼ N.		+8 44	−27 20			
			T.	−17 30	E.N.E.		−8 13	−25 43			
	−67 40	204 27	T.	−17 42	E. ½ S.	−80 34	−9 12	−26 54	−1 20	−27 46	
			R.	−16 49	E. ½ S.		−9 12	−26 01			
			R.	−35 09	S.W. ¼ W.		+7 20	−27 49			
29 A.M.	−67 34	203 59	T.	−27 58	S. ½ W.		+1 00	−26 58			
			T.	−16 57	E. ¾ N.		−8 57	−25 54			
31 A.M.	−67 20	202 20	T.	−28 40	S. by W. ½ W.		+3 00	−25 40			
	−67 21	202 02	T.	−28 20	S. ½ W.		+1 01	−27 19			
			R.	−25 59	S. ½ E.		−1 01	−27 00			
			T.	−26 30	S.		0 0	−26 30			
			T.	−22 51	S. by E. ¾ E.	−80 44	−3 28	−26 19	−1 20	−27 36	
			R.	−24 19	S. by E. ½ E.		−3 00	−27 19			
Feb. 1 P.M.	−67 19	201 56	T.	−20 23	S.S.E. ½ E.		−4 45	−25 08			
			W.	−19 08	S.E. by S.		−5 42	−24 50			
			T.	−34 20	N.W. by W.		+7 27	−26 53			
			R.	−37 09	W. ¾ N.		+9 09	−26 00			
			O.	−34 45	N.W. by W.		+7 27	−26 18			
			T.	−28 10	S. by W.		+2 02	−26 08			
			W.	−29 43	S. by W.	−80 44	+2 02	−27 41	−1 20	−28 12	
			R.	−29 29	N.N.W. ¼ W.		+3 26	−26 03			
			R.	−25 12	N. ½ E.		−0 50	−26 02			
		201 55	R.	−36 14	S.W ½ S.		+6 26	−29 48			
2 A.M.	−67 43	200 00	T.	−31 31	S.S.W.		+4 04	−27 27			
	−68 18	202 24	R.	−39 16	N.W.by W. ¾ W.		+7 55	−31 21			
	−68 17	202 32	T.	−39 48	W.S.W.		+9 19	−30 29			
3 A.M.	−68 04	199 45	W.	−21 19	S. by E. ¼ E.		−2 34	−23 53			
	−68 03	199 47	T.	−21 36	S.S.E. ½ E.		−4 57	−26 33			
	−68 37	200 03	S.	−21 34	S.E. ½ S.		−6 36	−28 10			
			R.	−22 08	S.E. by S.	−81 00	−5 51	−27 59	−1 20	−30 25	
	−68 41	199 54	R.	−23 06	S.E. ¾ S.		−6 13	−29 19			
			R.	−39 53	W. ¾ S.		+9 42	−30 11			
			W.	−38 58	W. ½ S.		+9 42	−29 16			
			T.	−40 19	W. ½ S.		+9 42	−30 37			
			S.	−40 25	W. ¾ S.		+9 42	−30 43			
			O.	−39 34	W. by S.		+9 42	−29 52			
	−68 44	199 50	R.	−40 56	W. by S. ½ S.		+9 30	−31 26			
4 A.M.	−68 49	199 42	SM.	−24 47	S. by E. ½ E.		−3 20	−28 07			
	−68 50		T.	−29 49	S. ½ W.		+1 08	−28 41			
	−68 51		O.	−29 42	S. by E.		−2 16	−31 58			
	−68 46	199 48	W.	−37 01	N.N.W. ½ W.		+4 35	−32 26			
			W.	−35 15	N.W. ½ N.		+6 15	−29 00			
			R.	−35 57	N.W. ½ N.		+6 15	−29 42			
			T.	−35 54	N.W. ½ N.	−81 38	+6 15	−29 39	−1 20	−32 33	
	−68 45	199 53	R.	−34 23	N.N.W. ¾ W.		+5 03	−29 20			
	−68 44	199 46	T.	−32 17	N. by W.		+2 16	−30 01			
			R.	−33 05	N. by W. ¼ W.		+2 22	−30 43			
			R.	−38 42	S.W. ½ S.		+7 07	−31 35			
			T.	−38 31	S.W. ¼ S.		+7 31	−31 00			
	−68 45	199 50	R.	−35 32	S.S.W. ¼ W.		+4 52	−30 40			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
Feb. 8. A.M.	−70° 07′	186° 36′	S.	−27° 52′	S.S.E.	° ′	−° 5′ 37	−33° 29′	° ′	° ′	
			T.	−26 51	S.S.E. ½ E.		− 6 51	−33 42			
			O.	−30 31	S. by E. ¼ E.		− 3 31	−34 02			
	−70 08	186 25	S.	−33 41	S.		0 0	−33 41			
			W.	−30 23	S. by E. ¼ E.	−83 39	− 3 31	−33 54	−1 20	−35 42	
			T.	−29 56	S. by E. ½ E.		− 4 12	−34 08			
		186 24	T.	−33 40	S. ¼ E.		− 0 43	−34 23			
8 P.M.	−70 34	185 47	R.	−32 55	S. by E.		− 2 54	−35 49			
			T.	−33 18	S. by E.		− 2 54	−36 12			
9 A.M.	−70 34	185 33	T.	−52 48	W. ½ N.		+14 29	−38 19			
			W.	−50 28	W. by N.		+14 15	−36 13			
9 P.M.	−70 30	185 25	R.	−50 00	W. ½ N.		+14 29	−35 31			
	−70 38	185 26	O.	−52 27	W. ½ S.		+14 40	−37 47			
	−70 33	185 20	R.	−51 21	W. ¼ S.		+14 41	−36 20			
			T.	−51 05	W. ¼ S.	−84 00	+14 41	−36 24	−1 20	−38 21	
			W.	−52 05	W. ¼ N.		+14 36	−37 29			
			T.	−50 17	W. ¼ N.		+14 36	−35 41			
	−70 31	185 13	R.	−51 58	W. ¼ S.		+14 41	−37 17			
			T.	−52 43	W.		+14 43	−38 00			
			R.	−52 35	W. ¾ N.		+14 22	−38 13			
	−70 26	185 05	R.	−53 52	W. ¼ N.		+14 18	−39 34			
			T.	−51 49	W. ½ N.		+14 11	−37 38			
			R.	−51 12	W. ½ N.		+14 11	−37 01			
	−70 25	185 00	S.	−54 00	W.		+14 25	−39 35			
10 A.M.	−70 22	184 17	T.	−49 11	W. ½ S.		+14 22	−34 49	−1 20	−37 35	
			Sm.	−49 13	W.	−83 52	+14 25	−34 48			
			T.	−49 48	W. ½ N.		+14 11	−35 37			
	−70 20	184 10	Sm.	−49 51	W. ¾ S.		+14 20	−35 31			
			T.	−47 56	W. by S. ¾ S.		+13 50	−34 06			
	−70 16	183 54	O.	−46 47	S.W.by W. ½ W.		+12 59	−33 48			
			S.	−47 11	W.S.W.		+13 34	−33 37			
			T.	−47 05	S.W.by W. ½ W.		+12 57	−34 08			
			S.	−50 09	W. by S. ½ S.		+13 54	−36 15			
10 P.M.	−70 11	183 52	R.	−27 10	S.E. by S.		− 8 24	−35 34			
	−70 13	183 51	R.	−26 53	S.E.		−10 37	−37 30			
	−70 12	183 50	O.	−50 12	W. by S.	−83 50	+14 13	−35 59	−1 20	−36 28	
			T.	−48 52	W. by S.		+14 13	−34 39			
			R.	−48 27	W. ½ S.		+14 16	−34 11			
			T.	−49 13	W. ¼ N.		+14 12	−35 01			
			W.	−47 54	W. ½ N.		+14 05	−33 49			
	−70 14	183 54	T.	−49 53	W. ¼ N.		+14 12	−35 41			
13 A.M.	−72 10	180 58	S.	−30 58	S.E.	−85 07	−13 19	−44 17	−1 20	−45 37	
16 A.M.	−75 08	173 20	T.	−55 14	S.E. ¾ S.		−19 18	−74 32			
			R.	−56 11	S.E. ½ S.	−87 10	−20 33	−76 44	−1 20	−77 17	
	−75 03	173 03	T.	−56 01	S.E. ½ S.		−20 33	−76 34			
18 P.M.	−76 48	182 33	T.	−85 00	N.		0 0	−85 00			
			R.	−84 09	N. ½ E.		− 2 39	−86 48			
			S.	−88 09	N.		0 0	−88 09			
			T.	−84 23	N.	−86 50	0 0	−84 23	−1 20	−86 23	
			W.	−90 46	N. by W. ½ W.		+ 7 53	−82 53			
	−76 47	182 33	R.	−80 25	N. ½ E.		− 2 39	−83 04			
22 A.M.	−76 21	194 43	T.	−63 58	S.E. ¾ S.		−12 25	−76 23			
	−76 29		O.	−72 18	S.S.E. ½ E.		− 9 49	−82 07			
			S.	−70 54	S.S.E.		− 8 03	−78 57			
			T.	−71 09	S. by E. ½ E.		− 6 05	−77 14			
	−76 32	194 39	T.	−68 08	S.S.E. ¼ E.		− 9 00	−77 08			
			W.	−72 15	S. by E.	−85 26	− 4 05	−76 20	−1 20	−79 57	
	−76 58	194 35	R.	−59 41	E. by S.		−20 00	−79 41			
	−76 57	194 28	T.	−59 00	E. by S.		−20 00	−79 00			
			R.	−59 18	E. by S.		−20 00	−79 18			
			R.	−59 57	E. by S.		−20 00	−79 57			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Feb. 23 A.M.	−77 45	198 16	T.	−96 30	S.S.W.		+ 7 08	−89 22			
			O.	−96 31	S.S.W. ½ W.		+ 8 43	−87 48			
			S.	−96 05	S.S.W.		+ 7 08	−88 57			
			T.	−93 06	S.S.W.		+ 7 08	−85 58			
			O.	−93 39	S.W. by S.		+10 19	−83 20			
	−77 42	198 00	T.	−94 06	S.S.W. ½ W.	−85 00	+ 8 43	−85 23	−1 20	−88 08	
			S.	−94 02	S.W. by S.		+10 19	−83 43			
			W.	−98 12	S.W. by S.		+10 19	−87 53			
			T.	−99 25	S.W. by S.		+10 19	−89 06			
	−77 50	197 54	W.	−98 09	S.W. ½ S.		+11 41	−86 28			
23 P.M.	−77 48	197 03	R.	−69 54	E. ½ S.		−17 41	−87 35			
	−77 56	197 40	T.	−69 07	E. ¾ S.		−17 39	−86 46			
	−78 00	197 26	R.	−70 06	E. by S.		−17 37	−87 43			
			T.	−68 51	E. ¾ S.		−17 39	−86 30			
	−78 02	197 24	S.	−70 14	E.		−17 46	−88 00			
	−78 07	197 34	R.	−67 13	E. ½ S.	−85 00	−17 41	−84 54	−1 20	−87 31	
			T.	−66 56	E. ½ S.		−17 41	−84 37			
			S.	−68 23	E.		−17 46	−86 09			
	−78 10	197 43	R.	−67 53	E. ½ S.		−17 41	−85 34			
			T.	−66 26	E. by S.		−17 37	−84 03			
25 A.M.	−75 13	193 50	T.	−82 32	W.		+17 46	−64 46			
			O.	−80 13	W.		+17 46	−62 27			
	−74 40	194 01	R.	−73 01	N.W.by W. ½ W.		+15 11	−57 50			
	−74 37	194 04	R.	−73 34	W.N.W.	−85 00	+16 05	−57 29	−1 20	−62 17	
	−74 25	194 04	T.	−76 47	W.N.W.		+16 05	−60 42			
		193 55	R.	−76 45	N.W. by W.		+14 17	−62 28			
27 P.M.	−71 59	186 42	T.	−57 42	S.W.by W. ¼ W.		+14 00	−43 42			
	−71 54	186 30	R.	−57 40	S.W. by W.	−84 25	+13 40	−44 00	−1 20	−45 11	
28 A.M.	−71 11	185 03	T.	−52 06	S.W.by W. ½ W.		+13 51	−38 15			
	−71 09	184 58	S.	−50 45	W.S.W.		+14 30	−36 15			
			T.	−53 25	S.W.by W. ½ W.	−84 15	+13 51	−39 34	−1 20	−39 20	
	−71 05	184 45	T.	−53 20	W. ½ S.		+15 19	−38 01			
			R.	−53 16	W.		+15 23	−37 53			
Mar. 1 A.M.	−70 11	180 32	O.	−46 44	W.N.W.		+13 52	−32 52			
			T.	−45 32	W. by N. ½ N.		+14 22	−31 10			
			S.	−44 09	W.N.W.	−83 46	+13 52	−30 17			
	−70 10	180 29	T.	−46 02	W.N.W.		+13 52	−32 10			
			W.	−45 45	W.N.W.		+13 52	−31 53			
1 P.M.	−69 36	180 02	R.	−24 21	N. by E.		− 2 47	−27 08			
			S.	−24 00	N. by E.		− 2 47	−26 47	−1 20	−30 50	
			T.	−24 01	N. by E. ½ E.		− 4 10	−28 11			
			O.	−24 05	N. by E. ½ E.	−83 43	− 4 10	−28 15			
	−69 32	180 08	S.	−22 09	N.N.E. ½ E.		− 6 45	−28 54			
	−69 33	180 10	T.	−21 28	N.N.E. ½ E.		− 6 45	−28 13			
			R.	−21 20	N.N.E. ½ E.		− 6 45	−28 05			
2 A.M.	−68 50	182 38	W.	−22 58	N.N.E.		− 4 31	−27 29			
	−68 44	182 43	T.	−22 15	N.N.E.		− 4 31	−26 46			
			W.	−22 09	N.N.E.		− 4 31	−26 40			
	−68 40	182 53	T.	−23 34	N. by E. ½ E.		− 3 24	−26 58			
2 P.M.	−67 53	183 44	R.	−22 49	N. by E. ¾ E.		− 3 57	−26 46			
	−67 52		S.	−20 18	N.E. by N.		− 6 34	−26 52			
	−67 49	184 05	T.	−17 56	N.E.	−82 23	− 8 27	−26 23	−1 20	−27 32	
	−67 47	184 25	T.	−18 59	N.N.E. ½ E.		− 5 33	−24 32			
			R.	−19 10	N. by E. ¾ E.		− 3 57	−23 07			
			W.	−16 49	N.E.		− 8 27	−25 16			
			R.	−18 58	N.E. by N.		− 6 34	−25 32			
	−67 45	184 15	R.	−21 25	N.E. by N.		− 6 34	−27 59			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
March 3 A.M.	−67 34	185 19	O.	−17 21	N.E. ½ E.	−82 00	− 8 41	−26 02	−1 20	−27 32	
	−67 28	185 39	R.	−18 06	N.E. ½ E.		− 8 41	−26 47			
5 A.M.	−67 20	187 56	T.	−16 16	E. by N.	−81 10	−10 23	−26 39			
			W.	−14 45	E. ½ N.		−10 35	−25 20			
6 A.M.	−65 27	191 35	Sm.	−19 52	N. by E.	−79 25	− 1 34	−21 26	−1 20	−23 40	
	−65 21	191 45	T.	−21 59	N. ½ E.		− 0 47	−22 46			
6 P.M.	−65 00	192 42	T.	−21 38	N. ¾ E.		− 1 10	−22 48			
		192 40	W.	−20 48	N. by E.		− 1 34	−22 22			
			T.	−20 15	N. by E.		− 1 34	−21 49			
			R.	−20 33	N. by E.		− 1 34	−22 07			
	−64 58	192 44	T.	−21 55	N. ¾ E.		− 1 10	−23 05			
7 P.M.	−63 33	194 53	R.	−15 05	S.E. ½ S.	−78 17	− 5 32	−20 37	−1 20	−21 57	
8 A.M.	−62 33	195 56	W.	−17 12	N. by E.	−77 23	− 1 17	−18 29	−1 20	−19 51	
			T.	−19 19	N. ¾ E.		− 0 58	−20 17			
8 P.M.	−62 11	196 26	T.	−11 28	S.E.		− 5 44	−17 12			
		196 29	T.	−15 05	N.N.E. ½ E.		− 3 07	−18 12			
			R.	−15 53	N.N.E.		− 2 32	−18 25			
9 A.M.	−61 15	198 29	T.	−14 36	N.E. by N.	−76 09	− 3 20	−17 56	−1 20	−18 42	
			Sm.	−13 54	N.E. by N.		− 3 20	−17 14			
9 P.M.	−60 54	199 40	W.	−12 25	N.E. ¾ E.		− 5 00	−17 25			
	−60 51	199 47	R.	−12 19	N.E. by E.		− 5 12	−17 30			
			S.	−12 12	N.E. by E.		− 5 12	−17 23			
			W.	−14 24	N.E.		− 4 22	−18 46			
	−60 50	199 49	R.	−11 40	N.E. by E.		− 5 12	−16 52			
	−60 47	200 20	R.	−10 12	E.N.E.		− 6 00	−16 12			
10 A.M.	−60 34	202 42	S	−10 21	E.N.E.	−74 15	− 5 30	−15 51	−1 20	−17 31	
			O.	−10 09	E.N.E.		− 5 30	−15 39			
	−60 32	203 08	T.	−11 10	E.N.E.		− 5 30	−16 40			
10 P.M.	−60 18	206 10	T.	−10 34	E. by N.		− 6 00	−16 34			
12 A.M.	−60 17	212 56	S.	−10 54	E. by N.	−73 55	− 5 34	−16 28	−1 20	−17 01	
			O.	− 9 58	E. by N.		− 5 34	−15 30			
			T.	− 8 29	E. by N. ½ N.		− 5 20	−13 49			
	−60 13	213 07	S.	−11 19	E. by N.		− 5 34	−16 53			
14 P.M.	−59 15	219 01	T.	− 8 53	N.E.	−73 56	− 3 37	−12 30	−1 20	−15 30	
			T.	− 8 33	N.E. by E.		− 4 26	−12 59			
		219 14	T.	− 8 10	N.E. by E.		− 4 26	−12 36			
15 A.M.	−58 44	221 51	T.	−10 06	E. by N. ¼ N.	−73 30	− 5 10	−15 16			
			S.	−12 31	E.N.E.		− 4 50	−17 21			
	−58 42	221 59	T.	− 9 23	E.N.E.		− 4 50	−14 13			
16 P.M.	−59 04	229 00	R.	−11 08	E. ½ S.	−73 00	− 5 26	−16 34	−1 20	−17 49	
			S.	−11 15	E. ½ S.		− 5 26	−16 41			
			O.	−10 47	E. ½ S.		− 5 26	−16 13			
			T.	−11 03	E. ½ S.		− 5 26	−16 29			
18 A.M.	−60 14	236 32	S.	−13 59	E.	−73 00	− 5 24	−19 23	−1 20	−20 56	
			O.	−15 28	E.		− 5 24	−20 52			
	−60 13	236 33	T.	−13 10	E.		− 5 24	−18 34			
20 P.M.	−59 17	245 40	R.	−14 40	E.N.E.	−71 33	− 4 14	−18 54	−1 20	−20 14	
22 A.M.	−58 40	251 52	T.	−15 41	E. by N.	−70 51	− 4 29	−20 10	−1 20	−21 47	
			W.	−15 48	E. by N.		− 4 29	−20 17			
			S.	−16 24	E. by N.		− 4 29	−20 53			
23 A.M.	−58 42	254 46	T.	−17 28	E. ½ N.	−70 11	− 4 26	−21 54	−1 20	−23 28	
			W.	−17 40	E. ½ N.		− 4 26	−22 06			
	−58 43	254 50	T.	−18 20	E.		− 4 35	−22 55			
23 P.M.	−58 38	255 34	R.	−17 58	N.E. by E. ½ E.		− 3 40	−21 38			
24 A.M.	−58 46	258 07	T.	−18 40	E.	−69 46	− 4 29	−23 09	−1 20	−25 25	
			O.	−19 41	E. ½ N.		− 4 21	−24 02			
			S.	−20 42	E. ½ N.		− 4 21	−25 03			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Mar. 26 A.M.	−59 00	268 07	T.	−20 21	E. by N. ½ N.		−3 32	−23 53			
			W.	−21 51	E. by N. ½ N.		−3 32	−25 23			
		268 10	T.	−22 06	E. by N. ½ N.		−3 32	−25 38			
26 P.M.	−59 02	268 40	T.	−22 17	E.N.E.		−3 24	−25 41			
			R.	−22 10	E.N.E.	−67 38	−3 24	−25 34	−1 20	−26 17	
		268 45	T.	−21 40	E.N.E.		−3 24	−25 04			
			R.	−21 31	E.N.E.		−3 24	−24 55			
			O.	−20 32	E.N.E.		−3 24	−23 56			
		269 10	R.	−21 02	E.N.E.		−3 24	−24 26			
27 A.M.	−59 02	272 04	Sm.	−22 15	E.N.E.	−67 00	−3 16	−25 31	−1 20	−26 51	
28 A.M.	−58 50	275 44	S.	−21 42	N.E. by E. ½ E.		−2 50	−24 32			
			O.	−21 37	N.E. by E. ½ E.		−2 50	−24 27			
			W.	−24 04	N.E. by E.	−65 30	−2 36	−26 40	−1 20	−26 18	
	−58 52	276 15	T.	−22 51	N.E. by E.		−2 36	−25 27			
	−58 54	276 53	R.	−21 06	N.E. by E.		−2 36	−23 42			
29 A.M.	−58 24	280 05	T.	−22 22	N.E. ½ E.		−2 15	−24 37			
29 P.M.	−58 20	280 34	R.	−20 55	N.E.		−2 02	−22 57			
	−58 19	280 31	T.	−22 12	N.E. ½ E.	−64 50	−2 15	−24 27	−1 20	−25 04	
			W.	−21 09	N.E. ½ E.		−2 15	−23 24			
		280 32	T.	−21 01	N.E. ½ E.		−2 15	−23 16			
30 A.M.	−58 30	282 07	T.	−22 52	E.N.E.		−2 47	−25 39			
			Sm.	−23 19	N.E. by E. ½ E.		−2 35	−25 54			
			O.	−21 57	E.N.E.		−2 47	−24 44			
			S.	−21 46	E.N.E.		−2 47	−24 33			
			T.	−21 53	E.N.E.	−63 40	−2 47	−24 40	−1 20	−26 14	
	−58 29	282 01	S.	−22 24	N.E. by E.		−2 23	−24 47			
			W.	−20 46	E. by N. ½ N.		−2 58	−23 44			
			T.	−22 21	E.N.E.		−2 47	−25 08			
			S.	−22 09	N.E. by E.		−2 18	−24 27			
		282 22	T.	−23 34	N.E. ½ E.		−2 04	−25 38			
			S.	−21 39	N.E. ½ E.		−2 04	−23 43			
	−58 28	282 24	T.	−23 30	N.E. ½ E.	−63 00	−2 04	−25 34	−1 20	−26 18	
31 A.M.	−58 40	285 29	W.	−24 06	N.E. ½ N.		−1 36	−25 42			
			S.	−22 42	N.E. by N.		−1 23	−24 05			
	−58 32	285 30	T.	−24 02	N.E. ½ N.		−1 36	−25 38			
April 5 A.M.	−52 56	300 18	T.	−15 31	N.N.E.		−0 33	−16 04			
			R.	−15 26	N.N.E.	−53 54	−0 33	−15 59			
5 P.M.	−52 14	300 50	T.	−14 33	N. by E.		−0 16	−14 49	−1 20	−16 29	
6 A.M.	−51 50	301 43	T.	−12 06	E. by S.		−2 16	−14 22			
			T.	−12 32	E. by S.	−52 30	−2 16	−14 48			
			T.	−15 34	N.N.W. ½ W.		+0 38	−14 56			

Declinations observed on board Her Majesty's Ship Terror, between June 1841 and August 1842.

The Observers are distinguished in the column of Initials as follows :—C. Captain Crozier; P. Lieut. Phillips; Cr. Mr. Cotter, Master.

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
				° ′		° ′	° ′	° ′	° ′	° ′	
July 7.	−43 30	147 20	C.	− 9 37	S. 53° E.		− 4 18	−13 55			
			C.	− 9 39	S. 48° E.		− 4 01	−13 40			
			C.	− 9 08	S. 48° E.	−71 00	− 4 01	−13 09	+1 07	−12 35	Card P.
			C.	−10 05	S. 48° E.		− 4 01	−14 06			
9.	−42 23	149 31	C.	−14 45	N. 22° W.		+ 1 24	−13 21			
			C.	−15 09	N. 32° W.		+ 2 03	−13 06			
			Cr.	−14 07	N.N.W.	−69 50	+ 1 25	−12 42	+1 07	−11 49	
	−42 08	149 30	Cr.	−14 45	N.N.W.		+ 1 25	−13 20			
			Cr.	−13 37	N.N.W.		+ 1 25	−12 12			
10.	−40 56	149 20	C.	−11 57	N. 12° W.		+ 0 39	−11 18			
			C.	−13 03	N. 12° W.		+ 0 39	−12 24			
			C.	−14 35	N. 15° W.	−68 40	+ 0 58	−13 37	+1 07	−11 11	
			C.	−12 15	N. 12° W.		+ 0 39	−11 36			
	−40 33	149 26	Cr.	−12 55	N. ½ W.		+ 0 19	−12 36			
11.	−38 15	150 15	C.	−12 58	N.		0 00	−12 58			
			C.	−11 23	N. 15° W.		+ 0 50	−10 33			
	−37 47	150 21	C.	−12 50	N. 8° W.		+ 0 27	−11 23			
			C.	−11 28	N. 8° W.		+ 0 27	−11 01			
			C.	−11 46	N. 17° W.	−66 40	+ 0 56	−10 50	+1 07	−10 38	
			C.	−12 35	N. 15° W.		+ 0 50	−11 45			
			C.	−12 59	N. 12° W.		+ 0 37	−12 22			
			Cr.	−13 10	N.		0 00	−13 10			
12.	−37 25	151 25	C.	−10 38	N. 30° E.		− 1 31	−12 09			
			C.	− 9 55	N. 28° E.		− 1 23	−11 18			
			C.	−11 38	N. 36° E.		− 1 47	−13 25			
			C.	−10 27	N. 38° E.		− 1 53	−12 20			
			C.	−12 14	N. 32° E.	−66 00	− 1 37	−13 51	+1 07	−11 32	
			Cr.	−11 21	N.E. by N.		− 1 39	−13 00			
			Cr.	−11 06	N.E.		− 2 10	−13 16			
	−37 13	151 42	Cr.	−12 57	N.		0 00	−12 57			
13.	−36 17	151 50	C.	−12 47	N. 20° W.	−65 00	+ 1 00	−11 47			
			C.	−13 23	N. 20° W.		+ 1 00	−12 23			
Aug. 6.	−33 56	151 0	C.	−10 06	N. 82° E.		− 3 01	−13 07			
			C.	− 9 21	N. 85° E.		− 3 05	−12 26			
			C.	− 9 03	N. 83° E.	−62 40	− 3 02	−12 05	+1 07	−11 18	
			C.	− 9 42	N. 70° E.		− 2 21	−12 03			
8.	−33 25	160 45	C.	−13 21	N. 75° E.		− 2 45	−16 06			
			C.	−12 50	N. 70° E.	−61 30	− 2 35	−15 25			
			C.	−12 41	N. 76° E.		− 2 47	−15 28			
9.	−33 39	163 40	C.	−12 00	E.		− 2 56	−14 56			
			C.	−12 41	E.		− 2 56	−15 37			
			C.	−12 31	E.		− 2 56	−15 27	+1 07	−14 26	
			C.	−12 35	N. 79° E.	−60 40	− 2 43	−15 18			
			C.	−12 39	E.		− 2 56	−15 35			
			C.	−12 35	N. 85° E.		− 2 50	−15 25			
			Cr.	−13 14	E.		− 2 56	−16 10			
10.	−33 44	166 30	C.	−11 05	E.S.E		− 2 59	−14 04			
			C.	−13 11	S.E. by E.		− 2 50	−16 01			
			C.	−12 22	N. 82° E.		− 2 42	−15 04			
			C.	−13 07	E.		− 2 52	−15 59			
			C.	−11 59	E. by S. ½ S.		− 2 59	−14 58			
			C.	−12 23	E.S.E.		− 2 59	−15 22			
			C.	−13 25	S.E. ½ E.	−60 10	− 2 40	−16 05	+1 30	−13 40	Card R.

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
Aug. 10.	−33° 44′	166° 30′	C.	−13° 11′	N. 70° E.	−60° 10′	−2° 04′	−15° 15′	+1° 30′	−13° 40′	
			C.	−14 20	N. 65° E.		−1 53	−16 13			
			C.	−13 12	N. 61° E.		−2 08	−15 20			
			C.	−11 15	S. 82° E.		−2 57	−14 12			
			C.	−13 13	N. 67° E.		−1 59	−15 12			
	−34 00	166 26	Cr.	−11 30	E. by N.		−2 39	−14 09			
			Cr.	−12 04	E.		−2 52	−14 56			
			Cr.	−11 33	E.S.E.		−2 59	−14 32			
			Cr.	−12 29	S.E. by E.		−2 50	−15 19			
11.	−33 32	167 35	C.	−14 56	N. 77° E.		−2 36	−17 32			
			C.	−14 34	E.		−2 49	−17 23			
			C.	−14 16	N. 73° E.		−2 27	−16 43			
			C.	−13 38	N. 78° E.		−2 36	−16 14			
			C.	−14 00	E.		−2 49	−16 49			
			C.	−12 41	S. 85° E.		−2 43	−15 24			
			C.	−13 28	N. 72° E.	−59 40	−2 25	−15 53	+1 30	−15 02	
			C.	−13 33	N. 72° E.		−2 25	−15 58			
			Cr.	−13 31	E.		−2 49	−16 20			
12.	−32 53	169 30	C.	−13 57	N. 56° E.		−1 56	−15 53			
			C.	−15 39	N. 53° E.		−1 50	−17 29			
			Cr.	−15 09	N.E.		−1 34	−16 43			
15.	−33 56	171 50	C.	−13 22	E. ½ S.		−2 43	−16 05			
			C.	−11 27	E. by S.		−2 47	−14 14			
16.	−34 20	172 45	C.	−13 53	E.		−2 40	−16 33			
			C.	−14 08	E.		−2 40	−16 48			
			C.	−16 20	N. 26° W.	−58 10	+0 46	−15 34	+1 30	−13 45	
			C.	−14 30	N. 38° W.		+1 15	−13 15			
			C.	−12 16	E.S.E.		−2 47	−15 03			
			Cr.	−15 30	N.W. by N.		+1 04	−14 26			
			Cr.	−12 34	E. by S.		−2 47	−15 21			
17.	−34 36	173 50	C.	−12 11	S. 83° E.		−2 45	−14 56			
			C.	−12 24	E. by S. ½ S.		−2 47	−15 11			
			C.	−13 20	E. by S. ½ S.	−58 10	−2 47	−16 07	+1 30	−13 42	
			C.	−11 38	E. by S. ½ S.		−2 47	−14 25			
	−34 17	173 35	Cr.	−12 35	E. by S.		−2 47	−15 22			
Nov. 24.	−36 17	177 12	Cr.	−13 51	E.S.E.	−59 40	−2 45	−16 36			
25.	−38 06	179 40	C.	−15 02	S.E. ½ E.		−2 30	−17 32			
			C.	−14 57	S.E. ½ E.		−2 30	−17 27			
			C.	−15 53	S.E.		−2 22	−18 15			
			Cr.	−14 50	S.E. by S.		−1 56	−16 46			
	−38 17	179 54	Cr.	−14 26	S.E. by E.	−60 15	−2 39	−17 05	+1 30	−14 55	
	−38 26	179 54	Cr.	−12 07	S.E. by E.		−2 39	−14 46			
	−38 23	179 54	C.	−13 23	S.E. by E.		−2 39	−16 02			
			C.	−11 33	S.E. by E.		−2 39	−14 12			
			C.	−12 50	S.E. by E. ½ E.		−2 43	−15 33			
26.	−39 03	182 33	Cr.	−13 59	E. by S.		−2 54	−16 53			
			C.	−13 18	S.E. by E. ½ E.		−2 48	−16 06			
			C.	−15 57	S.E.		−2 26	−18 23			
			C.	−15 47	S.E. by E. ½ E.	−61 00	−2 48	−18 35			
			Cr.	−14 19	S.E. by E.		−2 44	−17 03			
			Cr.	−13 43	E.S.E.		−2 53	−16 36	+1 30	−16 55	
			Cr.	−12 32	E.S.E.		−2 53	−15 25			
			Cr.	−13 22	E.S.E.		−2 53	−16 15			
28.	−40 38	183 05	C.	−18 06	S. by E.		−0 45	−18 51			
			C.	−15 51	S.E.	−62 00	−2 31	−18 22			
			Cr.	−16 32	S.E.		−2 31	−19 03			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Nov. 29.	−41 33	183 30	C.	−16 31	S.S.E.		− 1 30	−18 01			
			C.	−17 03	S.E. by S.		− 2 08	−19 11			
			C.	−16 45	S. by E.		− 0 47	−17 32			
			C.	−17 09	S. by E.		− 0 47	−17 56			
			Cr.	−16 08	S.		0 0	−16 08			
			Cr.	−17 09	S. by W.		+ 0 47	−16 22			
			Cr.	−14 51	S. by E.		− 0 47	−15 38			
			Cr.	−15 02	S.S.E.	−63 20	− 1 30	−16 32			
			Cr.	−14 53	S. by E.		− 0 47	−15 40			
			Cr.	−17 40	S.S.W.		+ 1 30	−16 10	+1 30	−15 13	
			Cr.	−18 41	S.W. by W.		+ 2 58	−15 43			
			Cr.	−18 32	S.W.		+ 2 38	−15 54			
			Cr.	−18 51	W.S.W.		+ 3 09	−15 42			
			Cr.	−18 51	S.W. by S.		+ 2 08	−16 43			
			Cr.	−14 42	S.E. by S.		− 2 08	−16 50			
30.	43 37	183 05	C.	−16 41	S. ½ E.		− 0 25	−17 06			
			C.	−17 56	S. ½ W.	−65 00	+ 0 25	−17 31			
			Cr.	−15 53	S.		0 0	−15 53			
			Cr.	−17 17	S.		0 0	−17 17			
Dec. 1.	−45 29	183 10	Cr.	−14 58	S.E. by E.		− 3 22	−18 20			
			Cr.	−16 21	S.E. by E.	−66 30	− 3 22	−19 43			
2.	−47 09	184 30	C.	−15 40	E.S.E.		− 3 36	−19 16			
			C.	−14 54	S.E. by E. ½ E.		− 3 29	−18 23			
	−47 37	185 00	C.	−12 59	S.E. ½ E.		− 3 11	−16 10			
			C.	−12 50	S.E. ¾ E.		− 3 16	−16 06	+1 30	−15 17	
			C.	− 9 24	S.E. by E. ¾ E.	−67 55	− 3 33	−12 57			
			C.	−12 04	S.E. by E.		− 3 22	−15 26			
	−47 11	184 24	Cr.	−13 24	E.S.E.		− 3 36	−17 00			
	−47 33	184 54	Cr.	−13 09	S.E. by E.		− 3 22	−16 31			
			Cr.	−11 28	S.E. by E.		− 3 22	−14 50			
3.	−48 57	186 40	C.	−13 51	E. by S. ½ S.	−69 05	− 4 07	−17 58			
			C.	−14 20	S.E. ¾ E.		− 3 40	−18 00			
5.	−49 33	189 22	C.	−13 32	E. ¾ S.		− 4 16	−17 48			
			C.	−15 03	E. ¾ S.		− 4 16	−19 19	+1 30	−16 52	
			C.	−13 40	E.S.E.	−69 40	− 4 13	−17 53			
			C.	−13 36	E. ½ S.		− 4 13	−17 49			
	−49 33	188 54	Cr.	−15 27	E. by S.		− 4 19	−19 46			
6.	−49 57	191 10	C.	−15 09	E. ½ S.		− 4 15	−19 24			
			C.	−14 07	E. ½ S.		− 4 15	−18 22			
			C.	−12 35	E. ¾ S.		− 4 19	−16 54			
			C.	−12 44	E. ¾ S.	−69 37	− 4 19	−17 03	+1 30	−16 36	
			C.	−13 55	E. ½ S.		− 4 15	−18 10			
			C.	−13 49	E. ¾ S.		− 4 19	−18 08			
			Cr.	−14 21	E. by S.		− 4 18	−18 39			
7.	−50 53	192 30	Cr.	−15 02	S.E. by E.		− 3 56	−18 58			
			C.	−13 31	S.E. by E. ½ E.		− 4 06	−17 37			
			C.	−14 35	S.E. by E.		− 3 56	−18 31			
			C.	−15 00	S.E. ½ E.		− 3 41	−18 41	+1 30	−16 37	
			C.	−14 59	S.E. by E.	−69 50	− 3 56	−18 55			
			C.	−12 11	S.E. by E. ½ E.		− 4 06	−16 17			
			Cr.	−15 47	S.E. ½ E.		− 3 41	−19 28			
			Cr.	−12 14	E.S.E.		− 4 15	−16 29			
8.	−51 37	194 00	C.	−13 24	E. by S.		− 4 25	−17 49			
	−51 53	195 17	C.	−12 57	E. by S.		− 4 25	−17 22			
			C.	−12 00	E. by S.		− 4 25	−16 25			
			C.	−11 26	E.S.E.		− 4 19	−15 45	+1 30	−15 14	
			C.	−12 15	E.S.E.	−70 11	− 4 19	−16 34			
			C.	−11 50	E.S.E.		− 4 19	−16 09			
			C.	−13 02	E. by S.		− 4 25	−17 27			
			C.	−11 59	E. by S.		− 4 25	−16 24			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 9.	−52 27	198 14	CR.	−15 16	E.S.E.		− 4 20	−19 36			
12.	−53 03	204 50	C.	−12 10	E.S.E.		− 4 20	−16 30			
			C.	−11 33	S.E. by E. $\frac{3}{4}$ E.		− 4 15	−15 58			
			C.	−10 32	E. by S. $\frac{3}{4}$ S.		− 4 23	−14 55			
			C.	−10 52	E. by S. $\frac{3}{4}$ S.		− 4 23	−15 15			
			C.	−11 00	E.S.E.	−70 15	− 4 20	−15 20	+1 30	−14 54	
	−53 18	205 46	C.	−11 32	E.S.E.		− 4 20	−15 52			
			C.	−12 32	E.S.E.		− 4 20	−16 52			
	−53 06	205 24	CR.	−12 11	E.S.E.		− 4 20	−16 31			
			CR.	−12 31	S.E. by E.		− 4 01	−16 32			
	−53 21	205 24	CR.	−12 42	E.S.E.		− 4 20	−17 02			
14.	−56 18	211 30	C.	−13 27	S.E. $\frac{1}{4}$ E.		− 3 57	−17 24			
			C.	−12 37	S.E. $\frac{3}{4}$ E.		− 4 13	−16 50			
			C.	−13 57	S.E.		− 3 49	−17 46			
			C.	−13 54	S.E. $\frac{1}{2}$ S.		− 3 26	−17 20			
	−56 24	211 45	C.	−12 24	E.		− 4 43	−17 07			
			C.	−12 01	E. $\frac{1}{4}$ N.		− 4 35	−16 36			
			C.	−21 03	S.W. $\frac{1}{4}$ W.		+ 3 57	−17 06			
			C.	−13 05	N.E. $\frac{1}{4}$ N.	−72 00	− 2 44	−15 49	+1 30	−15 14	
	−56 10	211 37	CR.	−13 15	S.E. by S.		− 3 03	−16 18			
			CR.	−12 34	S.E. by S.		− 3 03	−15 37			
			CR.	−11 19	S.E. by S.		− 3 03	−14 22			
	−56 29	211 50	CR.	−14 50	S.E. by S.		− 3 03	−17 53			
			CR.	−14 52	S.S.E.		− 2 09	−17 01			
			CR.	−13 15	S.E.		− 3 49	−17 04			
15.	−56 55	212 00	C.	−14 51	S.S.E. $\frac{1}{2}$ E.		− 2 40	−17 31			
			C.	−13 35	S.E. $\frac{1}{2}$ S.		− 3 31	−17 06			
			C.	−13 48	S.E. $\frac{3}{4}$ S.		− 3 20	−17 08			
			C.	−13 42	S.E. $\frac{3}{4}$ S.		− 3 20	−17 02			
	−57 09	212 26	C.	−15 01	S.S.E.		− 2 12	−17 13			
			C.	−13 59	S.S.E.	−72 30	− 2 12	−16 11	+1 30	−15 14	
			C.	−13 30	S.S.E. $\frac{1}{4}$ E.		− 2 25	−15 55			
			CR.	−13 39	S.S.E.		− 2 12	−15 51			
			CR.	−14 43	S.S.E.		− 2 12	−16 55			
			CR.	−14 15	S.S.E.		− 2 12	−16 27			
16.	−58 21	213 00	C.	−16 32	S. by E. $\frac{3}{4}$ E.		− 2 06	−18 38			
			C.	−17 39	S. by E. $\frac{1}{4}$ E.		− 1 31	−19 10			
			C.	−15 52	S.S.E.		− 2 23	−18 15			
			C.	−16 11	S. by E. $\frac{3}{4}$ E.		− 2 06	−18 17			
			C.	−16 05	S.S.E.	−73 55	− 2 23	−18 28	+1 30	−17 34	
			C.	−15 42	S.S.E		− 2 23	−18 05			
			CR.	−15 47	S.S.E.		− 2 23	−18 10			
			CR.	−18 43	S.S.E.		− 2 23	−21 06			
			CR.	−19 07	S.S.E.		− 2 23	−21 30			
17.	−60 28	213 40	CR.	−15 27	S.S.E.	−75 40	− 2 38	−18 05			
18.	−62 53	212 48	C.	−22 22	S. by W.		+ 1 29	−20 53			
			C.	−24 19	S. $\frac{1}{2}$ W.		+ 0 44	−23 35			
			C.	−20 41	S. by E. $\frac{1}{4}$ E.		− 1 52	−22 33			
			C.	−21 10	S. $\frac{1}{2}$ E.		− 0 44	−21 54			
	−62 56	212 00	C.	−28 15	S.W. by W.		+ 5 54	−22 21			
			C.	−27 18	S.W. by W.		+ 5 54	−21 24			
			C.	−27 54	S.W. $\frac{3}{4}$ W.		+ 5 44	−22 10	+1 30	−20 03	
			C.	−28 15	S.W. by W.	−76 50	+ 5 54	−22 21			
			C.	−27 49	S.W. by W. $\frac{1}{2}$ W.		+ 6 11	−21 38			
			C.	−27 16	S.W.		+ 5 08	−22 08			
	−63 01	211 30	C.	−23 57	S.S.W. $\frac{1}{2}$ W.		+ 3 32	−20 25			
			C.	−24 06	S.S.W.		+ 2 58	−21 08			
			C.	−24 02	S.S.W.		+ 2 58	−21 04			
	−62 56	212 00	CR.	−26 48	S.W.		+ 5 08	−21 40			

Observations of Declination. (Continued.)

1841.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Dec. 19.	−63 16	210 00	C.	−28 20	S.S.W. ¾ W.		+ 4 02	−24 18			
			C.	−26 10	S.S.W. ¼ W.		+ 3 27	−22 43			
	−63 23	209 40	C.	−31 10	W. by S. ½ S.		+ 6 54	−24 16			
			C.	−25 18	S. by W. ½ W.		+ 2 21	−22 57			
			C.	−23 47	S. ¼ W.		+ 0 23	−23 24			
			C.	−21 21	S.		0 0	−21 21			
			C.	−28 21	W.S.W.		+ 6 47	−21 34			
			C.	−29 18	S.W.		+ 5 25	−23 53			
			C.	−26 15	S.S.W. ½ W.	−77 36	+ 3 46	−22 29	+1 30	−20 56	
			C.	−25 04	S.S.W.		+ 3 08	−21 56			
			C.	−27 23	S.W. ¼ W.		+ 5 38	−21 45			
	−63 17	210 14	CR.	−24 51	S.W. by S.		+ 4 20	−20 31			
			CR.	−25 00	S. 18° W.		+ 2 35	−22 25			
			CR.	−27 16	S. 40° W.		+ 4 52	−22 24			
	−63 23	209 40	CR.	−27 06	S.S.W.		+ 3 08	−23 58			
			CR.	−28 50	S. 78° W.		+ 7 02	−21 48			
			CR.	−26 45	S. 78° W.		+ 7 02	−19 43			
21.	−64 48	206 10	C.	−22 59	S. by E. ¼ E.		− 2 04	−25 03			
			C.	−22 36	S.S.E.		− 3 17	−25 53			
			C.	−25 09	S. ¼ W.		+ 0 25	−24 44			
			C.	−24 11	S. ¾ E.		− 1 15	−25 26			
			C.	−28 03	S.S.W.	−78 30	+ 3 17	−24 46	+1 30	−22 55	
			C.	−23 49	S.		0 0	−23 49			
			C.	−26 53	S. by W. ½ W.		+ 2 28	−24 25			
			C.	−23 09	S. ½ E.		− 0 50	−23 59			
			C.	−20 51	S. ½ E.		− 0 50	−21 41			
22.	−65 21	205 20	C.	−25 11	S.		0 0	−25 11			
			C.	−25 56	S.		0 0	−25 56			
			C.	−27 31	S. ¾ W.	−79 20	+ 1 20	−26 11			
			CR.	−27 12	S. by W.		+ 1 48	−25 24	+1 30	−24 27	
			CR.	−27 32	S.		0 0	−27 32			
24.	−65 58	204 00	C.	−26 57	S. by W. ½ W.	−79 40	+ 2 42	−24 15			
1842.			CR.	−31 30	S.S.W. ½ W.		+ 4 19	−27 11			
Jan. 6.	−66 10	203 37	C.	−23 15	N.E. ¼ N.		− 5 26	−28 41			
			C.	−29 29	S.		0 0	−29 29			
			C.	−27 27	S. ½ E.		− 0 57	−28 24			
			C.	−27 10	S. ¾ E.	−79 56	− 1 25	−28 35	+1 07	−27 24	Card P.
			C.	−28 02	S. ¼ E.		− 0 28	−28 30			
			C.	−29 38	S. by W.		+ 1 54	−27 44			
			CR.	−31 14	N.N.W.		+ 3 00	−28 14			
9.	−66 02	204 00	C.	−34 06	S.W. ¼ S.		+ 6 14	−27 52			
			C.	−20 52	E.S.E.		− 8 14	−29 06			
			C.	−34 46	S.W. by W. ½ W.		+ 7 58	−26 48			
			C.	−20 09	E. ½ S.		− 8 32	−28 41			
			C.	−34 42	S.W. ½ S.		+ 5 54	−28 48			
			C.	−35 52	W. by S.		+ 8 32	−27 20			
			C.	−23 47	S.E. by S.		− 5 13	−29 00			
			C.	−20 29	S.E. ¾ E.		− 7 18	−27 47			
			C.	−33 58	S.W. ¾ W.	−79 52	+ 7 18	−26 40	+1 07	−26 48	
			C.	−21 37	S.E. ¾ E.		− 7 18	−28 55			
			C.	−33 55	S.W. ¾ W.		+ 7 18	−26 37			
			C.	−34 19	S.W. ¾ W.		+ 7 18	−27 01			
			C.	−20 34	S.E. ¾ E.		− 7 18	−27 52			
			CR.	−34 41	S.W.		+ 6 34	−28 07			
			CR.	−19 20	E.S.E.		− 8 14	−27 34			
			CR.	−34 20	S.W. ½ W.		+ 7 03	−27 17			
			CR.	−19 35	E. ½ S.		− 8 32	−28 07			
			CR.	−20 54	S.E. by E. ¾ E.		− 8 04	−28 58			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
Jan. 10.	−65° 58′	203° 54′	C.	−19° 32′	E. by N.	° ′	−8 13	−27° 45′	° ′	° ′	
			C.	−34 59	W. by S.		+8 31	−26 28			
			C.	−18 30	E. ¼ S.		−8 31	−27 01			
			C.	−33 40	S.W.byW.¼W.		+7 44	−25 56			
			C.	−34 14	S.W. ¾ W.		+7 20	−26 54			
			C.	−33 09	S.W. ½ W.	−79 48	+7 35	−25 34	+1 07	−25 00	
			C.	−32 30	S.W. ½ S.		+7 02	−25 28			
			C.	−30 16	S.S.W. ¼ W.		+4 01	−26 15			
			C.	−33 04	S.W. by W.		+7 34	−25 30			
			C.	−32 47	W. by S.		+8 32	−24 15			
			C.	−31 04	S.S.W. ¾ W.		+4 48	−26 16			
			C.	−32 00	S.S.W. ¾ W.		+4 48	−27 12			
			CR.	−23 04	S.E. ½ S.		−7 02	−30 06			
			CR.	−34 10	W.S.W.		+8 12	−25 58			
			CR.	−19 17	S.E.		−6 32	−25 49			
			CR.	−16 56	S.E. by E.		−7 34	−24 30			
			CR.	−19 00	E.S.E.	−79 48	−8 12	−27 12	+1 07		
			CR.	−19 31	E.S.E.		−8 12	−27 43			
			CR.	−18 33	E. by S.		−8 31	−27 04			
			CR.	−21 18	S.E.		−6 32	−27 50			
			CR.	−19 20	E. by N.		−8 13	−27 33			
			CR.	−18 52	E.S.E.		−8 12	−27 04			
11.	−65 57	203 40	C.	−28 13	N. ¾ W.		+1 09	−27 04			
			C.	−34 41	W. by S. ½ S.		+8 21	−26 20			
			C.	−29 53	S. ¼ W.		+1 26	−28 27			
			C.	−30 13	S. by W. ½ W.		+2 44	−27 29			
			CR.	−26 44	S.		0 0	−26 44			
			CR.	−26 45	S.		0 0	−26 45			
12.	−65 46	203 22	CR.	−35 16	S.W.		+6 32	−28 44			
			CR.	−38 22	S.W. by W.	−79 48	+7 34	−30 48	+1 07	−26 24	
13.	−66 10	202 40	C.	−26 00	S. ¼ E.		−1 26	−27 26			
			C.	−23 36	S. by E.		−1 52	−25 28			
			CR.	−25 26	S.		0 0	−25 26			
14.	−66 00	202 30	C.	−26 13	S. by E. ½ E.		−2 44	−28 57			
			C.	−28 28	S. ½ W.		−0 55	−27 33			
			C.	−20 54	E.N.E.		−7 34	−28 28			
			C.	−20 30	N.E. by E.		−6 42	−27 12			
28.	−67 40	204 10	CR.	−30 54	S. ½ W.		+1 01	−29 53			
			CR.	−29 04	S. ¾ E.		−1 30	−30 34			
			C.	−31 48	S. ¾ W.		+1 30	−30 18			
			C.	−26 53	N. ½ E.		−0 50	−27 43			
			C.	−33 38	N.W. ¼ N.	−80 34	+5 52	−27 46	+1 07	−28 19	
			C.	−36 47	S.W. ¼ S.		+6 38	−30 09			
			C.	−35 19	S.W. by S.		+5 36	−29 43			
			C.	−34 15	S.S.W.		+3 53	−30 22			
			C.	−19 11	E. ¾ S.		−9 14	−28 25			
29.	−67 36	204 00	CR.	−21 47	E. by S.		−9 20	−31 07			
			CR.	−35 06	S.S.W. ¼ W.	−80 40	+4 20	−30 46			
31.	−67 16	202 10	C.	−32 27	S.S.W.		+3 57	−28 30			
			C.	−26 24	S. by E. ½ E.		−2 58	−29 22			
			C.	−31 53	S. ½ W.		+1 02	−30 51			
			C.	−31 04	S. ¾ W.		+1 33	−29 31	+1 07	−28 37	
			C.	−29 03	S. ½ W.	−80 45	+1 02	−28 01			
			C.	−31 39	S. by W.		+2 01	−29 38			
			C.	−32 19	S. ¾ W.		+1 33	−30 46			
	−67 13	202 35	CR.	−34 04	S.S.W. ¼ W.		+4 20	−29 44			
			CR.	−32 40	S.S.W.		+3 57	−28 43			

Observations of Declination (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Feb. 1.	−67 20	201 40	C.	−27 52	S.S.E.		− 3 57	−31 49			
			C.	−34 23	N. 72° W.		+ 8 45	−25 38			
			C.	−26 02	S. 27° E.		− 4 51	−30 53			
			C.	−31 38	N. 25° W.		+ 3 46	−27 52			
			C.	−35 59	N. 50° W.		+ 6 50	−29 09			
			C.	−30 21	S. 5° E.	−80 45	− 1 00	−31 21	+1 07	−28 33	
			C.	−30 44	S. 5° E.		− 1 00	−31 44			
			C.	−26 52	N. 15° E.		− 2 20	−29 12			
			C.	−30 20	N. 14° W.		+ 2 11	−28 09			
			Cr.	−37 20	W.		+ 9 25	−27 55			
			Cr.	−28 37	S.S.E.		− 3 57	−32 34			
2.	−67 46	200 12	Cr.	−37 55	S.S.W.		+ 4 04	−33 51			
3.	−68 06	199 40	C.	−28 02	S.S.E. ½ E.		− 4 57	−32 59			
	−68 40	200 00	C.	−29 23	S.E.		− 7 22	−36 45			
			C.	−31 03	S.E. ¾ E.		− 7 39	−38 42			
			C.	−28 10	S.E. ¼ S.		− 6 36	−34 46			
			C.	−44 56	W. by S.		+ 9 42	−35 14			
			C.	−44 26	W.S.W.	−81 00	+ 9 19	−35 07	+1 30	−32 43	Card R.
			C.	−43 50	W.S.W.		+ 9 19	−34 31			
			C.	−42 51	W. by S. ½ S.		+ 9 30	−33 21			
			C.	−42 07	W. by S.		+ 9 42	−32 25			
	−67 58	199 50	C.	−41 14	W. by S.		+ 9 42	−31 32			
			Cr.	−26 59	S.S.E.		− 4 04	−31 03			
			Cr.	−30 29	S.S.E.		− 4 04	−34 33			
4.	−68 52	199 40	C.	−40 55	N.W. ¼ W.		+ 7 20	−33 35			
			C.	−38 40	N.W. ¾ N.		+ 5 52	−32 48			
			C.	−38 46	N.W. ¼ N.		+ 6 38	−32 08			
			C.	−34 27	N.W. ¾ N.	−81 38	+ 5 52	−28 35	+1 30	−30 47	
			C.	−36 02	N.N.W. ¾ W.		+ 5 03	−30 59			
			C.	−40 17	S.W. by S.		+ 6 19	−33 58			
			C.	−38 50	S.S.W. ¼ W.		+ 4 51	−33 59			
8.	−70 06	186 20	C.	−37 51	S. ¾ E.		− 2 08	−39 59			
			C.	−37 00	S. by E. ¾ E.		− 4 53	−41 53			
			C.	−37 30	S. ½ E.	−83 30	− 1 25	−38 55			
			Cr.	−37 06	S. ¾ E.		− 2 08	−39 14			
9.	−70 40	185 40	C.	−53 35	W.		+14 43	−38 52			
	−70 36	185 10	C.	−57 49	W. ¾ S.		+14 38	−43 11	+1 30	−38 55	
			C.	−55 20	W. ½ S.		+14 40	−40 40			
			C.	−54 51	W.		+14 43	−40 08			
			C.	−55 48	S. 85° W.		+14 41	−41 07			
			C.	−54 57	S. 85° W.		+14 40	−40 17			
			C.	−55 05	W. ¾ S.		+14 38	−40 27			
			C.	−54 54	W. ¾ S.		+14 38	−40 16			
			C.	−56 07	W.		+14 43	−41 24			
			C.	−53 58	N. 70° W.	−84 00	+13 31	−40 27			
			C.	−55 06	S. 78° W.		+14 15	−40 51			
	−70 22	185 00	C.	−53 56	W.		+14 43	−39 13			
			C.	−53 02	W. by N.		+14 15	−38 47			
	−70 40	185 40	Cr.	−51 03	W.N.W.		+13 16	−37 47	+1 30	−38 17	
			Cr.	−52 21	W. by N.		+14 15	−38 06			
	−70 36	185 10	Cr.	−49 34	W.		+14 43	−34 51			
			Cr.	−56 21	W.		+14 43	−41 38			
			Cr.	−56 14	W. ½ N.		+14 30	−41 44			
			Cr.	−53 30	W.N.W.		+13 16	−40 14			

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
				° ′		° ′	° ′	° ′	° ′	° ′	
Feb. 10.	−70 14	184 00	C.	− 53 45	W.		+14 07	−39 38			
			C.	− 51 09	S.W.byW.¾W.		+13 03	−38 06			
			C.	− 28 40	S.E. ¼ E.		−10 54	−39 34			
			C.	− 28 57	S.E. by E.		−12 05	−41 02			
			C.	− 29 12	S.E. by E.		−12 05	−41 17			
			C.	− 54 07	W. by S. ½ S.		+13 42	−40 25			
			C.	− 52 41	W. ¾ S.		+14 04	−38 37			
			C.	− 52 44	W. by S.		+14 02	−38 42			
			C.	− 51 25	W. ¼ S.	−83 45	+14 05	−37 20	+1 30	−37 19	
			C.	− 50 32	W. by S.		+14 02	−36 30			
			C.	− 50 33	W.N.W.		+12 43	−37 50			
			C.	− 37 01	N. ½ E.		− 1 17	−38 18			
			C.	− 38 12	N. by W.		+ 2 34	−35 38			
			Cr.	− 29 28	S.E. by S.		− 8 17	−37 45			
			Cr.	− 28 15	S.E. ½ E.		−11 17	−39 32			
			Cr.	− 53 43	W. ½ S.		+14 05	−39 38			
			Cr.	− 54 05	W. by S.		+14 02	−40 03			
12.	−71 04	180 46	C.	− 30 39	S.E. ¼ S.		−11 16	−41 55			
			C.	− 29 45	S.E.		−11 53	−41 38			
			C.	− 31 59	S.E. by S.	−84 30	− 9 24	−41 23	+1 30	−40 45	
			C.	− 32 18	S.E. ¾ S.		−10 00	−42 18			
			Cr.	− 32 09	S.E.		−11 53	−44 02			
14.	−73 14	181 08	C.	− 37 39	S. 42° E.	−86 00	−15 24	−53 03	+1 30	−51 48	
			Cr.	− 39 01	S.E. ½ S.		−14 32	−53 33			
16.	−75 04	173 20	C.	− 59 26	S.E. by S.	−87 00	−18 03	−77 29			
			C.	− 40 57	S.E. by E.		−27 15	−68 12			
17.	−76 04	176 00	C.	− 56 12	E. ¾ N.		−30 03	−86 15	+1 30	−76 03	
			C.	− 56 34	N.E. by E.	−87 00	−24 47	−81 21			
			C.	− 58 13	N.E. ¾ E.		−23 47	−82 00			
18.	−76 54	182 17	C.	− 80 43	N. ¼ E.		− 1 19	−82 02			
			C.	− 75 23	N. ¼ W.		+ 1 19	−74 04*			
			C.	− 74 51	S. 25° E.	−86 50	−13 23	−88 14	+1 30	−82 28	
			C.	− 75 01	N. by E. ¼ E.		− 6 36	−81 37			
20.	−76 12	191 40	C.	− 58 32	N.E.		−15 00	−73 32			
			C.	− 51 19	N.E.by E. ½ E.	−85 55	−18 53	−70 12	+1 30	−70 22	
22.	−76 32	194 40	C.	− 72 15	S.S.E. ¼ E.		− 8 47	−81 02			
			C.	− 74 30	S.S.E.		− 7 54	−82 24			
			C.	− 72 24	S.E. by S.		−11 26	−83 50			
	−77 00		C.	− 60 26	E.S.E.		−18 42	−79 08			
			C.	− 72 10	E.S.E.	−85 30	−18 42	−90 52	+1 30	−81 23	
			C.	− 65 19	E.S.E.		−18 42	−84 01			
	−76 32		C.	− 72 44	S.S.E. ¼ E.		− 8 47	−81 31			
	−77 00		C.	− 60 43	E. by S.		−19 36	−80 19			
23.	−78 00	198 32	C.	−110 25	W. by N. ¾ N.		+18 19	−92 06			
	−77 55	197 48	C.	− 70 48	E. ½ S.		−19 42	−90 30			
			C.	− 69 12	E. ½ S.		−19 42	−88 54			
			C.	− 70 07	E. ½ S.		−19 42	−89 49			
			C.	− 70 25	E. ½ S.	−85 30	−19 42	−90 07	+1 30	−88 01	
			C.	−108 56	W. ½ N.		+19 33	−89 23			
			C.	−103 22	W.N.W.		+17 59	−85 23			
	−78 04		Cr.	− 70 09	E. by S.		−19 46	−89 55			
24.	−77 32	200 00	Cr.	− 95 35	N.W.		+12 05	−83 30			
25.	−75 22	194 00	C.	− 84 54	W. ½ N.		+17 30	−67 24			
	−74 31	193 50	C.	− 79 11	N. 75° W.	−85 00	+16 57	−62 14	+1 30	−64 33	
			Cr.	− 71 00	N.W.		+12 05	−58 55			
			Cr.	− 56 32	N. ½ E.		− 1 38	−58 10			
28.	−71 00	184 10	C.	− 56 04	W.		+14 43	−41 21			
			C.	− 55 15	W. ¼ N.	−84 00	+14 29	−40 46	+1 30	−38 26	
	−70 54	183 50	Cr.	− 52 17	W. by S.		+14 37	−37 40			

* Doubtful; omitted in the mean.

Observations of Declination. (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Mar. 1.	−70 10	180 20	C.	−46 03	W. by N. ½ N.		+14 23	−31 40			
			C.	−48 05	W.N.W.	−83 45	+13 52	−34 13	+1 30	−31 26	
			Cr.	−47 46	W. by N.		+14 52	−32 54			
2.	−67 54	183 40	C.	−26 18	N.N.E.		− 4 27	−30 45			
			C.	−24 31	N.E. by N.		− 6 31	−31 02			
			C.	−25 00	N. by E. ½ E.	−82 20	− 3 21	−28 21	+1 30	−28 50	
	−68 24	183 20	Cr.	−26 47	N.N.E.		− 4 27	−31 14			
3.	−67 30	185 00	C.	−22 20	N.E. ¾ E.		− 9 04	−31 26			
			C.	−19 15	N.E. ¼ N.		− 7 30	−26 45			
			C.	−24 24	N.E. ½ N.		− 7 04	−31 28			
			C.	−23 27	E.N.E.	−82 00	−10 37	−34 04	+1 30	−29 46	
			C.	−24 07	N.E.		− 7 56	−32 03			
			Cr.	−25 40	N.N.E. ½ E.		− 5 12	−30 52			
			Cr.	−22 50	N.E. by E.		− 9 26	−32 16			
5.	−67 19	187 25	C.	−25 52	N. ½ W.	−81 10	+ 0 57	−24 55			
			Cr.	−26 54	N. by W.		+ 1 54	−25 00			
6.	−65 10	191 46	C.	−24 59	N. by E.		− 1 35	−26 34			
			C.	−24 14	N. by E. ½ E.	−79 30	− 2 21	−26 35	+1 30	−25 02	
			Cr.	−25 43	N.N.E.		− 3 08	−28 51			
	−64 56	192 24	Cr.	−27 15	N.		0 0	−27 15			
8.	−62 26	195 40	C.	−20 31	N. ¾ E.		− 0 58	−21 29			
			C.	−22 33	N.		0 0	−22 33			
			Cr.	−18 16	N. by E.	−77 30	− 1 18	−19 34	+1 30	−19 41	
			Cr.	−22 28	N. by W.		+ 1 18	−21 10			
9.	−61 00	199 00	C.	−17 27	N.E.		− 4 20	−21 47			
			C.	−14 35	E.N.E.		− 5 55	−20 30			
			Cr.	−17 46	N.E.	−76 10	− 4 20	−22 06	+1 30	−19 49	
			Cr.	−15 00	E.N.E.		− 5 55	−20 55			
10.	−60 20	205 36	C.	−15 04	E. by N. ½ N.		− 5 45	−20 49			
			C.	−14 25	E.N.E.		− 5 30	−19 55			
			C.	−13 58	E.N.E.	−75 15	− 5 30	−19 28	+1 30	−18 20	
		204 00	Cr.	−13 39	E.N.E.		− 5 30	−19 09			
12.	−60 18	212 00	C.	−12 51	E. by N.		− 5 34	−18 25			
			C.	−12 57	E. by N.		− 5 34	−18 31			
			C.	−12 59	E. by N.		− 5 34	−18 33			
			C.	−11 39	E.N.E.	−74 15	− 5 06	−16 45	+1 30	−17 19	
13.	−60 06	215 52	Cr.	−16 30	N.E.		− 3 43	−20 13			
14.	−59 12	219 18	Cr.	−16 01	N.E. by E.		− 4 29	−20 30			
15.	−58 50	222 00	C.	−12 10	E. by N.		− 5 26	−17 36			
			C.	−13 06	E.N.E.		− 4 59	−18 05			
			C.	−10 27	E. by N.	−73 55	− 5 26	−15 53	+1 30	−16 03	
			C.	−13 12	E. by N.		− 5 26	−18 38			
16.	−58 58	227 00	Cr.	−13 00	E. by S.	−73 05	− 5 31	−18 31	+1 30	−17 01	
18.	−60 18	236 30	C.	−18 40	E.		− 5 24	−24 04			
			C.	−15 26	E.	−73 00	− 5 24	−20 50	+1 30	−20 57	
			Cr.	−17 03	E.		− 5 24	−22 27			
19.	−60 02	240 31	Cr.	−17 53	E.N.E.	−72 15	− 4 25	−22 18	+1 30	−20 48	
22.	−58 28	251 40	C.	−18 33	E. by N.		− 4 29	−23 02			
			Cr.	−20 01	E.		− 4 45	−24 46			
			Cr.	−19 58	E. by N.	−70 51	− 4 29	−24 27	+1 30	−22 46	
			Cr.	−20 22	E. by N.		− 4 29	−24 51			
23.	−58 36	255 20	Cr.	−20 41	E. by N.		− 4 18	−24 59			
			C.	−24 18	S.S.E.		− 2 07	−26 25			
			C.	−23 57	S.E. ½ E.		− 4 00	−27 57			
			C.	−24 13	E. by N.	−70 11	− 4 18	−28 31	+1 30	−24 46	
			C.	−21 04	N.E. by E. ½ E.		− 3 41	−24 45			
			C.	−22 07	E. by N. ¼ N.		− 4 09	−26 16			
			C.	−20 43	E. by N.		− 4 18	−25 01			

Observations of Declination (Continued.)

1842.	Position. Lat.	Position. Long.	Initials.	Declination observed.	Direction of ship's head.	Inclination.	Correction for ship's attraction.	Corrected Declination.	Correction for index error.	True Declination.	Remarks.
	° ′	° ′		° ′		° ′	° ′	° ′	° ′	° ′	
Mar. 24.	−58 46	257 50	C.	−21 52	E. ¾ N.	−69 45	− 4 15	−26 07	+1 30	−26 13	
			C.	−24 59	E. by N.		− 4 11	−29 10			
			Cr.	−23 41	E. by N.		− 4 11	−27 52			
25.	−58 54	262 48	Cr.	−27 53	E.N.E.	−68 50	− 3 38	−31 31			
26.	−59 02	268 40	C.	−23 47	E.N.E.	−67 40	− 3 24	−27 11	+1 30	−26 25	
			C.	−24 43	E. by N. ¾ N.		− 3 29	−28 12			
			C.	−23 30	E. by N. ½ N.		− 3 34	−27 04			
			C.	−25 31	N.E. by E. ¾ E.		− 3 17	−28 48			
			Cr.	−22 22	E.N.E.		− 3 24	−25 46			
			Cr.	−25 51	N.E.		− 2 24	−28 15			
			Cr.	−22 29	E.		− 4 01	−26 30			
27.	−59 04	272 20	C.	−25 45	E.N.E.	−67 00	− 3 16	−29 01	+1 30	−27 08	
			C.	−26 39	E.N.E.		− 3 16	−29 55			
			Cr.	−25 53	E.N.E.		− 3 16	−29 09			
			Cr.	−23 12	E.N.E.		− 3 16	−26 28			
28.	−58 56	275 50	C.	−26 15	N.E. by E.	−65 30	− 2 35	−28 50	+1 30	−28 25	
			C.	−27 37	N.E. by E.		− 2 35	−30 12			
	−58 54	276 40	C.	−30 22	N. by E.		− 0 33	−30 55			
			C.	−29 25	N. by E.		− 0 33	−29 58			
			C.	−27 06	N.E. by E.		− 2 35	−29 41			
			C.	−27 54	N.E. by E.		− 2 35	−30 29			
			Cr.	−26 44	N.E. by E.		− 2 35	−29 19			
29.	−58 22	279 30	C.	−24 53	N.E. by E.	−64 50	− 2 30	−27 23	+1 30	−27 13	
			C.	−25 19	N.E. by E.		− 2 30	−27 49			
	−58 20	280 00	C.	−31 06	N. by W.		+ 0 31	−30 35			
			C.	−29 30	N. by E.		− 0 31	−30 01			
			C.	−24 59	E.		− 3 30	−28 29			
			C.	27 46	N.E. ½ E.		− 2 15	−30 01			
			C.	−25 09	E.N.E.		− 2 55	−28 04			
			C.	−25 27	E.N.E.		− 2 55	−28 22			
	−58 22	279 30	Cr.	−27 45	N.		0 0	−27 45			
			Cr.	−25 08	E.		− 3 30	−28 38			
30.	−58 30	282 00	C.	−24 51	N.E. by E. ½ E.	−63 40	− 2 35	−27 26	+1 30	−26 49	
			C.	−24 19	E.N.E.		− 2 47	−27 06			
			C.	−25 46	N.E. ½ E.		− 2 08	−27 54			
			C.	−25 46	N.E. by E.		− 2 23	−28 09			
			C.	−25 16	N.E. by E.		− 2 23	−27 39			
			C.	−25 49	N.E. by E.		− 2 23	−28 12			
			C.	−27 18	N.E. by E.		− 2 23	−29 41			
			C.	−25 46	N.E. by E.		− 2 23	−28 09			
			C.	−26 05	N.E. by E. ½ E.		− 2 35	−28 40			
			C.	−27 48	N.E. by E.		− 2 23	−30 11			
	−58 30	282 30	C.	−25 46	E. by N.	−63 00	− 3 02	−28 48	−1 30	−26 13	
			C.	−25 43	E. by N.		− 3 02	−28 45			
			Cr.	−25 04	E.N.E.		− 2 41	−27 45			
			Cr.	−25 25	E. by N.		− 3 02	−28 27			
			Cr.	−23 46	E.N.E.		− 2 41	−26 27			
31.	−58 26	285 08	C.	−26 49	N.E. by N.		− 1 23	−28 12			
			C.	−25 59	N.E. by N.		− 1 23	−27 22			
	−58 30	285 35	Cr.	−24 06	N.E.		− 1 50	−25 26			
April 1.	−57 35	288 54	Cr.	−25 30	N.E. by N.	−61 13	− 1 16	−26 46	+1 30	−25 16	
3.	−56 46	294 30	C.	−21 46	N.E.	−59 00	− 1 30	−23 16	+1 30	−20 26	
			Cr.	−19 07	N.E.		− 1 30	−20 37			
5.	−52 22	301 00	C.	−21 21	N. by E.	−53 54	− 0 17	−21 38	+1 30	−18 25	
			C.	−18 20	N. by E.		− 0 17	−18 38			
			C.	−20 32	N. by E.		− 0 17	−20 49			
6.	−51 50	301 35	C.	−19 07	N.N.W.	−52 30	+ 0 30	−18 37			

Observations of the Inclination made on board Her Majesty's Ship Erebus, with Needle R. F. 5, between April 1841 and August 1842.

Observers Captain Sir James Clark Ross and Lieutenant Alexander Smith, R.N.

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
April 19.	Hobarton, Magnetic Observatory.		Direct.	−70 18·4	Observed on shore.	....	−6	−70 32	−70 32	R. F. 4, used as deflector.
	−42 52	147 24	S.	−70 38·2						
			N.	−70 30·9						
			N.S.	−70 22·1						
20.			Direct.*	−70 26·3						
			N.S. at 24° 44′.	−70 30·6						
			S. at 56° 20′.	−70 02·7						
			N. at 53° 02′.	−70 12·5						
24.			Direct.	−70 24·3						R. F. 3, used as deflector.
			S.	−70 34·4						
			N.	−70 41·6						
			S. at 38° 11′.	−70 32·7						
			N. at 43° 54′.	−70 29·9						
June 29.	At anchor.		Direct.	−71 38·9	N.	+81	−7	−70 31	−70 39	R. F. 4, used as deflector.
			S.	−71 50·7	N.	+81	−7			
			Direct.	−71 40·5	N.N.E.	+78	−7	−70 35		
			S.	−71 52·5	N.N.E.	+78	−7			
			Direct.	−71 38·0	N.E.	+67	−7	−70 52		
			S.	−71 57·3	N.E.	+67	−7			
			Direct.	−71 13·4	E.N.E.	+47	−6	−70 42		
			S.	−71 31·8	E.N.E.	+47	−7			
			Direct.	−70 55·5	E.	+20	−6	−70 45		
			S.	−71 02·4	E.	+20	−6			
			Direct.	−70 21·5	E.S.E.	−12	−6	−70 42		
			S.	−70 25·8	E.S.E.	−12	−6			
			Direct.	−69 53·6	S.E.	−43	−6	−70 43		
			S.	−69 55·1	S.E.	−43	−6			
			Direct.	−69 17·0	S.S.E.	−67	−5	−70 44		
			S.	−69 46·4	S.S.E.	−67	−6			
			Direct.	−69 03·3	S.	−80	−5	−70 34		
			S.	−69 14·9	S.	−80	−5			
			Direct.	−69 26·5	S.S.W.	−67	−6	−70 46		
			S.	−69 40·3	S.S.W.	−67	−6			
			Direct.	−69 41·0	S.W.	−43	−6	−70 35		
			S.	−69 51·4	S.W.	−43	−6			
			Direct.	−70 14·8	W.S.W.	−12	−6	−70 39		
			S.	−70 26·6	W.S.W.	−12	−6			
			Direct.	−70 42·2	W.	+20	−6	−70 32		
			S.	−70 49·1	W.	+20	−6			
			Direct.	−71 10·4	W.N.W.	+47	−6	−70 34		
			S.	−71 19·3	W.N.W.	+47	−7			
			Direct.	−71 32·2	N.W.	+67	−7	−70 35		
			S.	−71 37·8	N.W.	+67	−7			
			Direct.	−71 42·4	N.N.W.	+78	−7	−70 39		
			S.	−71 58·3	N.N.W.	+78	−7			
			Direct.	−71 42·5	N.	+81	−7	−70 39		
			S.†	−72 03·3	N.	+81	−7			

* Observed on shore; face west. { Direct. −71° 40′·6; S. −71 09·6; N. −71 20·1; N.S. −71 10·8 }

† Face west. { Direct. −73° 07′·8; S. −72 34·9 } Head north.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
July 7.			Direct.	−70 16·1	S.E. ½ E.	−37	−6			
			S.	−70 03·4	S.E. ½ E.	−37	−6			
			N.	−70 05·4	S.E. ½ E.	−37	−6	−70 54	−70 54	Running out of Storm Bay.
			N.S.	−70 12·0	S.E. ½ E.	−37	−6			
			Direct.	−70 18·9	S.E. ½ E.	−37	−6			
8.	−43 00	148 28	Direct.	−71 27·3	N.N.E.	+78	−7			
			S.	−71 43·2	N.N.E.	+78	−7			
			N.	−71 36·7	N.N.E.	+78	−7	−70 25	−70 25	A heavy head sea.
			N.S.	−71 39·1	N.N.E.	+78	−7			
			Direct.	−71 32·2	N.N.E.	+78	−7			
9.	−42 13	149 25	Direct.	−70 46·5	N.N.W.	+77	−6			
			S.	−70 56·3	N.N.W.	+77	−6			
			N.	−71 12 6	N.N.W.	+77	−7	−69 37	−69 37	A head sea.
			N.S.	−70 30·2	N.N.W.	+77	−6			
			Direct.	−70 36·5	N.N.W.	+77	−6			
10.	−40 55	149 12	Direct.	−69 52·4	N. by W.	+76	−6			
			S.	−69 53·7	N. by W.	+76	−6			
			N.	−69 47·1	N. by W.	+76	−6	−68 41	−68 41	
			N.S.	−69 49·2	N. by W.	+76	−6			
11.	−37 50	150 22	Direct.	−67 47·8	N. by W.	+72	−5			
			N.	−67 53·9	N. by W.	+72	−5			
			N.S.	−67 28·9	N. by W.	+72	−5	−66 36	−66 36	
			Direct.	−67 40·4	N. by W.	+72	−5			
12.	−37 21	151 33	Direct.	−67 01·6	N.E.	+62	−4			
			S.	−66 58·0	N.E.	+62	−4			
			N.	−67 03·3	N.E.	+62	−4	−66 01	−66 01	
			N.S.	−66 49·4	N.E.	+62	−4			
			Direct.	−67 04·8	N.E.	+62	−4			
13.	−36 01	151 48	Direct.	−66 19·0	N.W. by N.	+64	−4			
			N.	−65 57·0	N.W. by N.	+64	−4	−65 04	−65 04	Much motion.
			N.S.	−65 52·9	N.W. by N.	+64	−4			
			Direct.	−66 08·5	N.W. by N.	+64	−4			
14.	−33 52	151 21	Direct.	−64 05·9	N.	+67	−3			
			S.	−64 20·3	N.	+67	−3			
			N.	−64 05·4	N.	+67	−3	−63 15		Running along the land into Port Jackson.
			N.S.	−64 00·8	N.	+67	−3			
			Direct.	−65 03·8	N.	+67	−3			
14.	−33 51	151 20	Direct.	−63 49·0	N. by W.	+66	−3	−62 46		
			Direct.	−63 37·9	N.W.	+58	−3	−62 43		
			Direct.	−62 05·5	S.W. by W.	−17	−2	−62 25		
			Direct.	−62 03·1	S.E.	−35	−2	−62 40		
			Direct.	−61 52·5	S.S.W. ½ W.	−51	−2	−62 46		
31.			Direct.	−63 11·9	W.	+25	−2	−62 56	−62 47	
	At anchor.		S.	−63 24·0	W.	+25	−3			
	−33 51	151 17	Direct.	−62 19·1	W.S.W.	− 2	−2	−62 23		
			Direct.	−61 12·6	S.	−63	−2	−62 24		
			S.	−61 26·1	S.	−63	−2			
			Direct.	−61 31·5	S.S.W.	−53	−2	−62 34		
			S.	−61 47·5	S.S.W.	−53	−2			
Aug. 3.			Direct.	−63 30·1	N.E.	+58	−3	−62 40		
			S.	−63 40·9	N.E.	+58	−3			

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
July 15.	Garden Island, Sydney.		Direct.	−62 40·8*			−2			
			S.	−62 50·1			−2			
	−33 51	151 17	N.	−62 49·9			−2			
			N.S.	−62 42·9	Observed on shore.		−2			
Aug. 4.			Direct.	−62 45·9†			−2	−62 48	−62 48	
			S.	−62 50·1			−2			
			N.	−62 50·2			−2			
			N.S.	−62 40 3			−2			
5.			Direct.	−63 40·6	N.N.E.	+64	−3	−62 40		
			Direct.	−63 03·4	E. by N.	+35	−2			
			Direct.	−63 06·5	E. by N.	+35	−2			
			S.	−63 22·6	E. by N.	+35	−3	−62 43	−62 42	Running out of harbour.
			N.	−63 26·1	E. by N.	+35	−3			
			N.S.	−63 23·0	E. by N.	+35	−3			
			Direct.	−63 09·8	E. by N.	+35	−2			
6.	−33 52	154 07	Direct.	−63 09·3	E. by N.	+35	−2			
			S.	−63 38·9	E. by N.	+35	−3			
			N.	−63 11·4	E. by N.	+35	−2	−62 47	−62 47	Much motion.
			N.S.	−63 30·2	E. by N.	+35	−3			
			Direct.	−63 03·3	E. by N.	+35	−2			
7.	−33 51	157 18	Direct.	−62 47·0	E. by N.	+35	−2			
			S.	−62 43·3	E. by N.	+35	−2			
			N.	−62 35·7	E. by N.	+35	−2	−62 07	−62 07	Much motion.
			N.S.	−62 31·5	E. by N.	+35	−2			
			Direct.	−62 42·7	E. by N.	+35	−2			
8.	−33 27	160 43	Direct.	−62 04·4	E. by N.	+35	−2			
			S.	−61 59·5	E. by N.	+35	−2			
			N.	−61 55·1	E. by N.	+35	−2	−61 30	−61 30	
			N.S.	−62 13·7	E. by N.	+35	−2			
			Direct.	−62 02·0	E. by N.	+35	−2			
9.	−33 38	163 42	Direct.	−61 02·5	E.	+26	−1			
			S.	−61 31·5	E.	+26	−2			
			N.	−61 14·6	E.	+26	−2	−60 48	−60 48	
			N.S.	−61 18·4	E.	+26	−2			
			Direct.	−61 04·0	E. by N.	+35	−1			
10.	−33 38	166 28	Direct.	−61 11·7	N.E.	+56	−1			
			S.	−61 06·7	N.E.	+56	−1	−60 06	−60 07	
			N.	−60 45·7	N.E.	+56	−1			
			N.S.	−61 03·9	N.E.	+56	−1			
			Direct.	−60 33·2	E.	+26	−1	−60 08		
11.	−33 22	167 40	Direct.	−60 12·3	E. by N.	+35	−1			
			S.	−60 22 3	E. by N.	+35	−1			
			N.	−60 06·9	E. by N.	+35	−1	−59 39	−59 39	
			N.S.	−60 15·0	E. by N.	+35	−1			
			Direct.	−60 11·0	E. by N.	+35	−1			
12.	−32 58	169 20	Direct.	−59 44·4	E.N.E.	+43	−1			
			S.	−59 43·5	E.N.E.	+43	−1			
			N.	−59 38·7	E.N.E.	+43	−1	−59 04	−59 04	
			N.S.	−59 54·7	E.N.E.	+43	−1			
			Direct.	−59 49·1	E.N.E.	+43	−1			

* Observed on shore; face west.

	° ′
Direct.	−63 53·3
S.	−63 44·8
N.	−63 33·1
N.S.	−63 38·5

† Observed on shore; face west. Direct. −63° 51′ 7

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Aug. 13.	−32 12	170 27	Direct.	−58 47·3	S.E. by E.	−12	0			
			S.	−58 30·2	S.E. by E.	−12	0	−58 33	−58 33	Much motion.
			N.	−58 09·7	S.E. by E.	−12	0			
			N.S.	−57 55·2	S.E. by E.	−12	0			
14.	−33 27	171 21	Direct.	−57 30·0	S.E. by E.	−12	+1			
15.	−33 55	171 54	Direct.	−58 49·5	E. ½ S.	+20	0			
			S.	−59 03·7	E. ½ S.	+20	0			
			N.	−59 02·9	E. ½ S.	+20	0	−58 24	−58 24	A head swell.
			N.S.	−58 59·8	E. ½ S.	+20	0			
			Direct.	−58 42·5	E. ½ S.	+20	0			
16.	−34 00	172 01	Direct.	−57 46·5	S.E. by E. ½ E.	− 4	+1			
16.	−34 21	178 48	Direct.	−58 49·3	E.S.E.	+ 4	0			
17.	−34 29	173 36	Direct.	−58 26·0	E.S.E.	+ 4	0			
			S.	−58 42·5	E.S.E.	+ 4	0			
			N.	−58 02·7	E.S.E.	+ 4	0	−58 26	−58 26	Much motion.
			N.S.	−58 42·0	E.S.E.	+ 4	0			
			Direct.	−58 17·0	E.S.E.	+ 4	0			
			Direct.	−58 50·8	E.S.E.	+ 4	0			
23.	Bay of Islands.		Direct.	−59 26·4						
	−35 16	174 00	S.	−59 34·5						
			N.	−59 29·1						
			N.S.	−59 22·6						
			Direct.	−59 28·2*	Observed on shore.	.....	−1	−59 29	−59 29	
Oct. 27.			Direct.	−59 28 0†						
			S.	−59 43 2						
			N.	−59 31·9						
			N.S.	−59 26·2						
			Direct.	−59 28·3‡						
20.	At anchor.		Direct.	−60 17·1	N.W. ½ N.	+54	−1			
			S.	−61 03·1	N.W. ½ N.	+54	−1	−59 49		
			Direct.	−58 31·7	S.	−57	0			
			S.	−59 05·6	S.	−57	0			
Nov. 23.	−35 15	174 39	Direct.	−59 25·0	E.S.E.	+1	−1	−59 25	−59 28	Nov. 23, running along the land.
			Direct.	−59 37·7	E. by S.	+15	−1			
			Direct.	−59 30·7	E. by S.	+15	−1			
			S.	−59 23·8	E. by S.	+15	−1	−59 11		
			N.	−59 11·7	E. by S.	+15	−1			
			N.S.	−59 22·3	E. by S.	+15	−1			
24.	−36 27	177 34	Direct.	−59 50·0	E.S.E.	0	−1			
			Direct.	−59 56 2	E.S.E.	0	−1			
			S.	−59 48·2	E.S.E.	0	−1	−59 54	−59 54	
			N.	−59 48 2	E.S.E.	0	−1			
			N.S.	−60 03·2	E.S.E.	0	−1			
25.	−38 17	179 51	Direct.	−59 55·3	S.E. by S.	−34	−1			
			S.	−59 34·4	S.E. by S.	−34	−1			
			N.	−60 02·2	S.E. by S.	−34	−1	−60 32	−60 34	
			N.S.	−60 14·7	S.E. by S.	−34	−1			
			Direct.	−59 57·2	S.E. by S.	−34	−1			
			Direct.	−60 19·5	S.E.	−23	−1	−60 43		

* Observed on shore; face west.

	° ′
Direct.	−60 33·0
S.	−60 30·1
N.	−60 28·4
N.S.	−60 19·6
Direct.	−60 31·9

† Observed on shore; face west.

	° ′
Direct.	−60 30·1
S.	−60 33·1
N.	−60 40·4
N.S.	−60 14·9
Direct.	−60 32·0

‡ Observed on shore; face west.

	° ′
Direct.	−60 29·0
S.	−60 28·8
N.	−60 19·1
N.S.	−60 18·9
Direct.	−60 28·8

Nov. 13.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Nov. 25.	−38 54	181 12	Direct.	−61 13·0	E.S.E.	0	−2	−61 15		
26.	−39 01	182 12	Direct.	−61 27·8	E. by s.	+14	−2			
			S.	−61 04·7	E. by s.	+14	−1			
			N.	−61 43·4	E. by s.	+14	−2	−61 15		A heavy sea and very much motion.
			N.S.	−61 29·7	E. by s.	+14	−2		−61 34	
			Direct.	−61 30·4	E. by s.	+14	−2			
27.	−39 18	182 58	Direct.	−61 02·9	s.	−50	−1			
			S.	−61 01·5	s.	−50	−1			
			N.	−61 16·4	s.	−50	−2	−61 57		
			N.S.	−61 11·1	s.	−50	−1			
			Direct.	−60 59·6	s.	−50	−1			
28.	−40 47	183 03	Direct.	−62 03·3	S.E. by E.	−10	−2			
			S.	−62 35·5	S.E. by E.	−10	−2			
			N.	−61 59·9	S.E. by E.	−10	−2	−62 21		
			N.S.	−61 59·8	S.E. by E.	−10	−2		−62 21	
			Direct.	−61 29·8	S. by E.	−49	−2	−62 21		
29.	−41 49	183 41	Direct.	−62 29·9	S. by E.	−49	−2			
			S.	−62 34·4	S. by E.	−49	−2			
			N.	−62 43·2	S. by E.	−49	−2	−63 28	−63 28	
			N.S.	−62 47·0	S. by E.	−49	−2			
			Direct.	−62 32·0	S. by E.	−49	−2			
30.	−43 32	183 03	Direct.	−63 38·3	S. ½ W.	−52	−3			
			S.	−64 16·6	S. ½ W.	−52	−3			
			N.	−63 48·1	S. ½ W.	−52	−3	−64 44	−64 44	
			N.S.	−63 43·9	S. ½ W.	−52	−3			
			Direct.	−63 38·9	S. ½ W.	−52	−3			
Dec. 1.	−45 40	183 20	Direct.	−66 08·5	S.E. by E.	−15	−4			
			S.	−66 34·2	S.E. by E.	−15	−4			
			N.	−66 03·2	S.E. by E.	−15	−4	−66 35	−66 35	A head sea.
			N.S.	−66 29·2	S.E. by E.	−15	−4			
			Direct.	−66 05·3	S.E. by E.	−15	−4			
2.	−47 19	184 40	Direct.	−67 41·2	S.E. by E. ½ E.	−11	−5			
			S.	−67 34·0	S.E. by E. ½ E.	−11	−5			
			N.	−67 34·0	S.E. by E. ½ E.	−11	−5	−67 56	−67 56	A head swell.
			N.S.	−67 32·5	S.E. by E. ½ E	−11	−5			
			Direct.	−67 56·0	S.E. by E. ½ E.	−11	−5			
3.	−48 43	186 30	Direct.	−68 51·5	E.S.E.	− 5	−5	−69 01		
			Direct.	−68 46·1	S.E. by E.	−20	−5			
			S.	−68 38·6	S.E. by E.	−20	−5	−69 08	−69 05	
			N.	−68 43·6	S.E. by E.	−20	−5			
			N.S.	−68 41·6	E.S.E.	− 5	−5	−68 52		
			Direct.	−68 49·7	S.E. by E.	−20	−5	−69 15		
4.	−49 20	187 41	Direct.	−69 32·4	E. by s.	+ 6	−6			
			S.	−70 10·2	E. by s.	+ 6	−6			
			N.	−69 48·6	E. by s.	+ 6	−6			
			N.S.	−69 50·0	E. by s.	+ 6	−6			
			Direct.	−69 24·4	E. by s.	+ 6	−6	−69 41	−69 41	
5.	−49 27	189 13	Direct.	−69 36·0	E. by s.	+ 6	−6			
			S.	−69 47·2	E. by s.	+ 6	−6			
			N.	−69 32·9	E. by s.	+ 6	−6			
			N.S.	−69 28·2	E. by s.	+ 6	−6			
6.	−50 00	191 00	Direct.	−69 17·5	E. by s.	+ 6	−6			
			S.	−69 51·7	E. by s.	+ 6	−6			
			N.	−69 37·0	E. by s.	+ 6	−6	−69 34		
			N.S.	−69 38·2	E. by s.	+ 6	−6		−69 43	
	−50 48	192 20	Direct.	−69 28·5	E. by s.	+ 6	−6			

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Dec. 7.	−50° 48′	192° 20′	Direct.	−69° 18′·8	S.E. by E.	−21′	−6′	−69° 58′	−69° 43′	
			S.	−70 01·5	S.E. by E.	−21	−6			
			N.	−69 17·2	S.E. by E.	−21	−6			
			N.S.	−69 04·5	S.E. ½ E.	−26	−5	−69 42		
			Direct.	−69 17·0	S.E. ½ E.	−26	−6			
8.	−51 34	194 29	Direct.	−70 04·1	E. by S.	+ 6	−6			
			S.	−70 33·6	E. by S.	+ 6	−6			
			N.	−70 12·3	E. by S.	+ 6	−6	−70 10		
			N.S.	−69 53·8	E. by S.	+ 6	−6			
			Direct.	−70 06·0	E. by S.	+ 6	−6		−70 21	
9.	−52 02	197 53	Direct.	−70 19·0	E. by S.	+ 6	−6			
			S.	−70 49·0	E. by S.	+ 6	−6			
			N.	−70 29·1	E. by S.	+ 6	−6	−70 32		
			N.S.	−70 11·2	E. by S.	+ 6	−6			
			Direct.	−70 17·0	E. by S.	+ 6	−6			
			Direct.	−70 18·0	E. by S.	+ 6	−6			
10.	−53 01	202 11	Direct.	−71 08·0	E. ½ N.	+25	−6			
			S.	−71 26·2	E. ½ N.	+25	−7			
			N.	−71 13·0	E. ½ N.	+25	−7	−70 53		
			N.S.	−71 09·7	E. ½ N.	+25	−6			
			Direct.	−71 05·0	E. ½ N.	+25	−6		−70 44	
11.	−52 48	203 50	Direct.	−70 35·9	E.	+19	−6			Ship unsteady; much motion.
			S.	−70 53·5	E.	+19	−6			
			N.	−70 54·6	E.	+19	−6	−70 35		
			N.S.	−71 11·2	E.	+19	−6			
			Direct.	−70 30·4	E.	+19	−6			
12.	−53 01	205 08	Direct.	−69 56·8	E.S.E.	− 6	−6			
			S.	−70 11·6	E.S.E.	− 6	−6			
			N.	−70 00·7	E.S.E.	− 6	−6			
			N.S.	−69 42·3	E.S.E.	− 6	−6	−70 10	−70 10	
			Direct.	−69 56·5	E.S.E.	− 6	−6			
			Direct.	−70 01·5	E.S.E.	− 6	−6			
13.	−54 55	209 30	Direct.	−70 21·0	S.E. by E. ½ E.	−14	−6			
			S.	−70 55·7	S.E. by E. ½ E.	−14	−6			
			N.	−70 30·0	S.E. by E. ½ E.	−14	−6	−70 54		
			N.S.	−70 44·5	S.E. by E. ½ E.	−14	−6			
			Direct.	−70 23·5	S.E. by E. ½ E.	−14	−6		−70 58	
	−55 08	210 04	Direct.	−70 26·5	S.E. by E. ½ E.	−14	−6			
			S.	−71 04·2	S.E. by E. ½ E.	−14	−6			
			N.	−70 34·7	S.E. by E. ½ E.	−14	−6	−71 13		
			N.S.	−71 03·0	S.E. by E. ½ E.	−14	−6			
			Direct.	−70 27·5	S.E. by E. ½ E.	−14	−6			
	−55 20	210 28	Direct.	−70 35·5	S.E. by E. ½ E.	−15	−6			
			S.	−71 13·5	S.E. by E. ½ E.	−15	−7			
			N.	−70 48·7	S.E. by E. ½ E.	−15	−6	−71 11		
			N.S.	−70 53·0	S.E. by E. ½ E.	−15	−6			
			Direct.	−70 39·0	S.E. by E. ½ E.	−15	−6		−71 28	
14.	−56 20	211 52	Direct.	−70 38·0	S.E. by S.	−47	−6			
			S	−71 23·9	S.E. by S.	−47	−7			
			N.	−71 01·3	S.E. by S.	−47	−6	−71 46		
			N.S.	−70 36·2	S.E. by S.	−47	−6			
			Direct.	−70 43·0	S.E. by S.	−47	−6			

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
								° ′	° ′	
Dec. 14.	−55 55	211 38	Direct.	−70 51·5	S.E. by S.	−48	− 6			
			S.	−71 59·2	S.E. by S.	−48	− 7			
			N.	−71 00·7	S.E. by S.	−48	− 6	−72 03		
			N.S.	−71 04·0	S.E. by S.	−48	− 6			
			Direct.	−70 50·3	S.E. by S.	−48	− 6		−72 18	
15.	−56 55	212 34	Direct.	−71 09·5	S.S.E.	−58	− 6			
			S.	−72 36·0	S.S.E.	−58	− 7			
			N.	−71 18·2	S.S.E.	−58	− 7	−72 33		
			N.S.	−71 14·5	S.S.E.	−58	− 7			
			Direct.	−71 07·5	S.S.E.	−58	− 6			
	−56 06	212 20	Direct.	−71 37·1	S.E. by S.	−48	− 7	−72 32		
			Direct.	−71 48·0	E.S.E.	− 9	− 7		−72 08	
			S.	−72 14·8	E.S.E.	− 9	− 7			
			N.	−71 30·0	E.S.E.	− 9	− 7	−72 03		
			N.S.	−71 31·0	E.S.E.	− 9	− 7			
			Direct.	−71 50·0	E.S.E.	− 9	− 7			
16.	−58 29	213 11	Direct.	−72 41·5	S.S.E.	−60	− 7			
			S.	−72 49·3	S.S.E.	−60	− 7			
			N.	−72 25·6	S.S.E.	−60	− 7	−73 40		
			N.S.	−72 33·8	S.S.E.	−60	− 7			
			Direct.	−72 09·1	S.S.E.	−60	− 7			
	−58 36	213 17	Direct.	−72 38·0	S.S.E.	−60	− 7		−73 45	
	−58 52	213 22	Direct.	−72 41·7	S.S.E.	−61	− 7			
			S.	−72 47·0	S.S.E.	−61	− 7			
			N.	−72 40·0	S.S.E.	−61	− 7	−73 52		
			N.S.	−72 44·6	S.S.E.	−61	− 7			
			Direct.	−72 47·7	S.S.E.	−61	− 7			
17.	−61 03	213 57	Direct.	−74 02·5	S.S.E.	−62	− 8			
			S.	−74 27·7	S.S.E.	−62	− 8			
			N.	−73 50·0	S.S.E.	−62	− 8	−75 15		
			N.S.	−73 58·7	S.S.E.	−62	− 8			
			Direct.	−74 04·6	S.S.E.	−62	− 8		−75 32	
			Direct.	−74 08·0	S.S.E.	−62	− 8			
	−61 37	213 57	Direct.	−74 32·0	S. by E.	−69	− 8			
			S.	−74 53·0	S. by E.	−69	− 8			
			N.	−74 07·0	S. by E.	−69	− 8	−75 47		
			N.S.	−74 25·0	S. by E.	−69	− 8			
			Direct.	−74 33·0	S. by E.	−69	− 8			
18.	−62 40	212 53	Direct.	−75 01·5	S.	−72	− 8			
			S.	−75 20·3	S.	−72	− 9			
			N.	−75 10·5	S.	−72	− 8	−76 38		
			N.S.	−75 47·0	S.	−72	− 9		−76 36	
			Direct.	−75 07·8	S.	−72	− 8			
			Direct.	−75 10·0	S. by W.	−70	− 8	−76 32		
			Direct.	−75 18 0	S. by W.	−70	− 9			
19.	−63 23	210 02	Direct.	−76 17·0	S.S.W.	−63	− 9			
			S.	−76 23·3	S.S.W.	−63	− 9			
			N.	−75 54·0	S.S.W.	−63	− 9	−77 26	−77 26	
			N.S.	−76 24·0	S.S.W.	−63	− 9			
			Direct.	−76 12·6	S.S.W.	−63	− 9			
	−63 23	210 02	Direct.	−77 03·3	Observed on Ice.	....	− 9	−77 25	−77 25	
			S.	−77 45·7			−10			
			N.	−77 08·3			− 9			
			N.S.	−77 04·6*			− 9			

* Observed on ice; face west. } Direct. −78° 20′·3.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
								° ′	° ′	
Dec. 19.	−63 23	210 02	Direct.	−76 48·8	s.w. by w.	−28	− 9	−77 26		
			Direct.	−77 02·5	w.s.w.	−13	− 9	−77 25	−77 30	
			Direct.	−76 31·2	s.w. by s.	−55	− 9	−77 35		
20.	−63 47	208 26	Direct.	−76 26 6	s. by w.	−71	− 9			
			S.	−77 23·7	s. by w.	−71	−10	−77 58		
			N.	−76 03·0	s. by w.	−71	− 9		−77 57	
			N.S.	−76 36·6	s. by w.	−71	− 9			
			Direct.	−76 33·7	s.s.w.	−63	− 9	−77 46		
21.	−64 38	206 53	Direct.	−76 42·5	s.	−74	− 9	−78 32		
			S.	−77 34·8	s.	−74	−10			
			N.	−76 39·4	s. by w.	−72	− 9			
			N.S.	−76 49·5	s. by w.	−72	− 9	−78 09	−78 20	
			Direct.	−76 54·0	s. by w.	−72	− 9			
	−64 50	206 37	Direct.	−77 02·0	s. by E.	−72	− 9	−78 23		
			Direct.	−76 58·0	s.	−74	− 9	−78 21		
			Direct.	−77 13·3	s.s.w.	−64	−10	−78 27		
	−64 53	206 30	Direct.	−77 15·8	s. by w.	−72	−10			
			S.	−78 13·2	s. by w.	−72	−10	−78 55		
			N.	−77 18·0	s. by w.	−72	−10			
			N.S.	−77 22·6	s. by w.	−72	−10			
			Direct.	−77 13·1	s.	−74	−10	−78 37	−78 57	
22.	−65 30	205 41	Direct.	−77 37·4	s.	−75	−10			
			Direct.	−77 37·4	s.	−75	−10			
			S.	−78 00·3	s.	−75	−10			
			N.	−77 47·2	s.	−75	−10	−79 06		
			N.S.	−77 27·6	s.	−75	−10			
			Direct.	−77 38·0	s.	−75	−10			
23.	−65 59	204 16	Direct.	−79 50·3	E.N.E.	+40	−11			
			S.	−80 53·5	E.N.E.	+40	−11	−79 53		
			Direct.	−78 04·0	s. by w.	−73	−10			
			S.	−79 32·3	s. by w.	−73	−11	−79 59		
			N.	−78 11·2	s. by w.	−73	−10			
			Direct.	−77 53·0	s.	−75	−10			
			S.	−78 44·7	s.	−75	−10			Fast to a piece of ice.
			N.	−78 06·5	s.	−75	−10	−79 34		
			N.S.	−77 51·8	s.	−75	−10			
24.	65 57	203 53	Direct.	−78 30·4	s.w. by w.	−30	−10	−79 10		
			Direct.	−80 25·6	N. by w.	+74	−11	−79 23		On the 24th lying becalmed alongside pieces of ice.
			Direct.	−80 11·7	N.E. by N.	+67	−11	−79 16	−79 31	
			Direct.	−79 49·2	N.W. $\frac{1}{2}$ W.	+57	−11	−79 03		
			Direct.	−80 27·2	N.	+76	−11	−79 22		
			Direct.	−80 01·6	N.W.	+60	−11	−79 13		
			Direct.	−79 16·6	W. by N.	+28	−11	−79 00		
			Direct.	−79 33·4	W.N.W.	+40	−11	−79 04		
	−65 58	203 51	Direct.	−78 14·3	S.S.W.	−65	−10	−79 29		
			S.	−79 34·4	s.w. by s.	−57	−11			
			N.	−78 17·8	s.w. by s.	−57	−10	−79 47		
			N.S.	−78 05·6	s.w. by s.	−57	−10			
			Direct.	−78 20·1	S.W.	−45	−10	−79 15		
25.	−66 00	203 46	Direct.	−79 38·5	E.	+14	−11			
			S.	−80 52·7	E.	+14	−11			
			N.	−79 46·8	E.	+14	−11	−80 08		
			Direct.	−79 39·7	E.	+14	−11			
			Direct.	−80 29·6	N.W.	+60	−11	−79 54		
			Direct.	−79 45·6	E. by N.	+28	−11	−79 41	−79 53	

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Dec. 26.	−66 11	203 36	Direct.	−78 57·0	S.E. by E.	−30	−10			
			S.	−79 45·1	S.E. by E.	−30	−11			
			N.	−79 16·2	S.E. by E.	−30	−11	−80 07		
			Direct.	−79 02·1	S.E. by E.	−30	−10		−79 53	
			Direct.	−79 59·2	N.W.	+60	−11			
			S.	−81 36·5	N.W.	+60	−12	−80 11		
27.	−66 16	203 31	Direct.	−79 51·5	E.	+14	−11	−79 48		
			Direct.	−79 48·5	E. ½ N.	+21	−11	−79 39		
28.	−66 20	203 22	Direct.	−81 15·2	N.	+76	−12			
			Direct.	−81 05·8	N.	+76	−11	−80 05		
29.	−66 24	203 51	Direct.	−80 43·5	N.E.	+60	−11			
			S.	−81 22·4	N.E.	+60	−12	−80 14		
			Direct.	−79 55·6	E.	+14	−11	−79 53	−79 57	
30.	−66 31	203 07	Direct.	−80 39·2	N.N.E.	+72	−11	−79 38		
			Direct.	−80 57·8	N.	+76	−11	−79 53		
			Direct.	−79 05·4	S.W.	−45	−10	−80 00		
			Direct.	−80 39·1	N.W. by W.	+55	−11	−79 55		
31.	−66 32	203 33	Direct.	−78 51·6	S.W. by S.	−57	−10	−79 59		
			Direct.	−78 30·1	S. by W. ½ W.	−69	−10	−79 49		
1842.										
Jan. 1.	−66 32	203 32	Direct.	−78 23·9	S.S.E.	−65	−10			
			S.	−78 47·5	S.S.E.	−65	−10			
			N.	−78 39·1	S.S.E.	−65	−10	−79 48		
			N.S.	−78 29·0	S.S.E.	−65	−10			
			Direct.	−78 24·8	S.S.E.	−65	−10			
3.	−66 35	203 29	Direct.	−80 56·0	N. by W. ½ W.	+73	−11		−79 55	Fast to the same piece of ice as Terror, distant 25 fathoms from her.
			S.	−81 30·1	N. by W. ½ W.	+73	−12			
			N.	−81 08·1	N. by W. ½ W.	+73	−11	−80 07		
			N.S.	−81 03·3	N. by W. ½ W.	+73	−11			
			Direct.	−81 05·3	N. by W. ½ W.	+73	−11			
4.	−66 34	203 51	Direct.	−79 01·8	S.E. by E.	−30	−10	−79 42		
			Direct.	−78 25·4	S. by E.	−73	−10	−79 48		
6.	−66 06	204 24	Direct.	−78 07·2	S.	−75	−10			
			S.	−78 45·8	S.	−75	−10			
			N.	−78 16·1	S.	−75	−10	−79 39		
			N.S.	−77 58·2	S.	−75	−10			
			Direct.	−78 06·1	S.	−75	−10			
7.	−66 13	204 19	Direct.	−78 11·3	S.	−75	−10			
			Direct.	−80 04·6	N.W.	+60	−10	−80 15	−79 44	Sailing amongst loose ice.
		204 25	Direct.	−78 13·7	S. by W.	−73	−10	−79 37		
			S.	−78 48·3	S.	−75	−10			
			N.	−78 26·9	S.	−75	−10	−79 51		
			N.S.	−78 02·6	S.	−75	−10			
			Direct.	−80 11·0	N.W.	+60	−10	−79 21		
8.	−66 14	204 33	Direct.	−80 35·1	N.	+76	−11	−79 30		
			Direct.	−80 09·6	N.E.	+60	−11	−79 21		
			Direct.	−79 31·2	E.	+14	−11	−79 28		
			Direct	−78 47·1	S.E.	−45	−10	−79 42		
			Direct.	−78 13·7	S.	−75	−10	−79 39		
			Direct.	−78 09·7	S.S.E.	−65	−10	−79 25		
	−66 12	204 33	Direct.	−80 19·2	N.W.	+60	−11		−79 34	
			S.	−80 44·6	N.W.	+60	−11	−79 41		
			N.	−80 35·3	N.W.	+60	−11			
			N.S.	−80 20·0	N.W.	+60	−11			
			Direct.	−78 09·7	S.S.E.	−65	−10			
			S.	−78 21·6	S.S.E.	−65	−10	−79 34		
			Direct.	−79 35·7	W.	+14	−11			
			Direct.	−78 53·6	S.W. by W.	−30	−10	−79 34		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Jan. 9.	−66° 04′	204° 19′	Direct.	−78° 48·7	S.W. ½ W.	−37′	−10′	−79° 36′		
			Direct.	−79 24·0	E. by S.	− 1	−11	−79 36		
			Direct.	−78 39·5	S.W.	−45	−10	−79 35		
10.	−65 59	204 12	Direct.	−78 50·8	S.W. by W.	−30	−10			
			S.	−79 41·0	S.W. by W.	−30	−11	−79 41		
			N.	−78 40·9	S.W. by W.	−30	−10			
			N.S.	−78 47·0	S.W. by W.	−30	−10		−79 38	
			Direct.	−79 32·0	E.	+14	−11	−79 36		
			S.	−79 45·4	E.	+14	−11			
11.	−65 58	203 44	Direct.	−80 18·8	N.E. by E.	+55	−11	−79 35		
			Direct.	−78 19·8	S.	−75	−10	−79 45		
12.	−65 54	203 32	Direct.	−78 25·0	S.W.	−45	−10	−79 38		
			S.	−79 00·8	S.W.	−45	−10			
			Direct.	−78 26·9	S.W. ½ S.	−51	−10	−79 28		
13.	−66 11	203 03	Direct.	−79 08·0	S.W. ¾ W.	−34	−10	−79 52		
			Direct.	−79 06·4	S.W. by W.	−30	−10	−79 46		
	−66 12	203 05	Direct.	−78 02·0	S.S.E.	−65	−10			
			S.	−78 26·2	S.S.E.	−65	−10	−79 24	−79 35	
			N.	−78 00·7	S.S.E.	−65	−10			
			N.S.	−78 07·4	S.S.E.	−65	−10			
			Direct.	−80 37·5	N.N.E.	+72	−10	−79 43		
			S.	−80 51·9	N.N.E.	+72	−10			
			N.	−80 36·8	N.N.E.	+72	−11			
			N.S.	−80 40·1	N.N.E.	+72	−11	−79 37		
			Direct.	−80 35·5	N.N.E.	+72	−11			
14.	−66 14	203 09	Direct.	−80 34·2	N.E. by E.	+55	−11	−79 50		
			Direct.	−78 00·9	S. by W.	−73	−10	−79 24	−79 33	
			Direct.	−80 28·4	N.E.	+60	−11	−79 39		
			Direct.	−78 08·3	S. by W.	−73	−10	−79 31		
15.	−66 02	202 30	Direct.	−78 28·0	S.W.	−45	−10	−79 23		
16.	−65 49	202 02	Direct.	−79 21·4	E.	+14	−11	−79 18		
			S.	−79 28·9	Observed on ice.	....	−11			
			N.	−79 33·2			−11	−79 47	−79 47	
			N.S.	−79 58·8			−11			
			Direct.	−79 22·4*			−11			
19.	−66 18	201 22	Direct.	−79 08·3	S.W. by W.	−30	−10	−79 48		
			Direct.	−81 06·4	N. by E.	+74	−11	−80 03		
21.	−66 49	202 40	Direct.	−78 33·0	S. by E.	−73	−10		−80 01	
			S.	−79 08·5	S. by E.	−73	−10	−80 05		
			N.	−78 35·4	S. by E.	−73	−10			
			N.S.	−78 29·5	S. by E.	−73	−10			
28.	−67 38	204 01	Direct.	−81 23·9	N.	+76	−12			
			N.	−81 37·4	N.	+76	−12	−80 30		
			S.	−81 39·4	N.	+76	−12			
			Direct.	−78 53·5	S.	−75	−10	−80 19		
			Direct.	−79 00·5	S. by W. ½ W.	−69	−10	−80 20	−80 22	
29.	−67 32	203 59	Direct.	−79 00·4	S.S.W.	−65	−10			
			S.	−79 04·6	S.S.W.	−65	−10	−80 17		
			N.	−79 01·8	S.S.W.	−65	−10			
			N.S.	−79 01·9	S.S.W.	−65	−10			

* Observed on ice, face west } Direct. −80° 39′·2.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Jan. 30.	−67 18	203 39	Direct.	−79 30·8	S.W. ½ S.	−51	−11			
			S.	−80 28·3	S.W. ½ S.	−51	−11			
			N.	−79 38·7	S.W. ½ S.	−51	−11	−80 47		
			N.S.	−79 25·5	S.W. ½ S.	−51	−11			
			Direct.	−79 59·3	S. by W.	−73	−10	−81 22		
31.	−67 21	202 15	Direct.	−79 04·4	S.W.	−45	−10		−80 26	
			S.	−79 19·5	S.W.	−45	−11	−80 02		
			N.	−79 04·2	S.W.	−45	−10			
			N.S.	−79 00·3	S.W.	−45	−10			
			Direct.	−79 39·1	W.S.W.	−15	−11	−80 09		
Feb. 1.	−67 11	202 07	Direct.	−79 48·5	W.S.W.	−15	−11			
2.	−67 57	200 00	Direct.	−79 22·4	S.E.	−45	−11	−80 18		
			Direct.	−79 59·5	S. by W.	−73	−11	−81 24		
			Direct.	−79 32·0	S.S.E. ½ E.	−61	−11		−80 46	
			S.	−79 49·7	S.S.E. ½ E.	−61	−11			
			N.	−79 30·2	S.S.E. ½ E.	−61	−11	−80 44		
			N.S.	−79 23·0	S.S.E. ½ E.	−61	−11			
			Direct.	−79 27·3	S.S.E. ½ E.	−61	−11			
3.	−68 21	200 03	Direct.	−80 01·0	S.E. by S.	−57	−11			
			S.	−79 53·0	S.E. by S.	−57	−11			
			N.	−79 50·4	S.E. by S.	−57	−11	−81 04		Much motion.
			N.S.	−79 57·1	S.E. by S.	−57	−11			
			Direct.	−79 56·8	S.E. by S.	−57	−11			
4.	−68 42	199 44	Direct.	−79 58·7	S. ½ E.	−74	−11			
			S.	−80 17·9	S. ½ E.	−74	−11		−81 14	
			N.	−79 57·9	S. ½ E.	−74	−11	−81 24		
			N.S.	−79 41·9	S. ½ E.	−74	−11			
			Direct.	−79 59·2	S. ½ E.	−74	−11			
	−68 49	199 41	Direct.	−82 12·8	N. by W.	+74	−12	−81 09		
5.	−68 59	196 07	Direct.	−80 53·5	S.W.	−45	−11	−81 00		
		195 51	Direct.	−80 49·0	S.W. by S.	−57	−11			
			S.	−81 02·2	S.W. by S.	−57	−11	−81 57	−81 54	
			N.	−80 46·0	S.W. by S.	−57	−11			
			N.S.	−80 39·6	S.W. by S.	−57	−11			
			Direct.	−81 52·8	W. ½ N.	+22	−12	−81 43		
6.	−69 48	192 25	Direct.	−81 08·5	S. by W.	−74	−11			
			S.	−81 28·9	S. by W.	−74	−12			
			N.	−81 11·0	S. by W.	−74	−11	−82 35	−82 35	
			N.S.	−80 47·4	S. by W.	−74	−11			
			Direct.	−81 12·3	S. by W.	−74	−12			
7.	−70 05	191 10	Direct.	−81 45·1	S.W.	−46	−12	−82 43		
			S.	−81 50·1	S.S.W.	−66	−12		−82 51	Much motion.
			N.	−81 38·8	S.S.W.	−66	−12			
			N.S.	−81 13·2	S.S.W.	−66	−12	−82 53		
			Direct.	−81 29·8	S.S.W.	−66	−12			
	−70 17	190 15	Direct.	−81 43·0	S.S.W.	−66	−12			
	−70 26	189 00	Direct.	−82 07·0	S.S.W.	−66	−12			
			S.	−81 39·2	S.S.W.	−66	−12			
			N.	−81 44·5	S.S.W.	−66	−12	−83 07	−83 07	Much motion.
			N.S.	−81 27·0	S.S.W.	−66	−12			
			Direct.	−82 10·2	S.S.W.	−66	−12			
8.	−70 18	186 01	Direct.	−81 50·6	S.	−77	−12			
			S.	−81 59·7	S.	−77	−12			
			N.	−81 49·3	S.	−77	−12	−83 18	−83 18	
			N.S.	−81 37·1	S.	−77	−12			
			Direct.	−81 50·0	S.	−77	−12			

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Feb. 9.	−70 39	185 31	Direct.	−82 06·3	S. by E.	−75	−12	−83 33		
			Direct.	−82 24·5	S.E. by S.	−58	−12		−83 35	
			S.	−82 50·4	S.E. by S.	−58	−12			
			N.	−82 14·6	S.E. by S.	−58	−12	−83 36		
			N.S.	−82 17·0	S.E. by S.	−58	−12			
			Direct.	−82 23·2	S.E. by S.	−58	−12			
10.	−70 11	183 50	Direct.	−83 23·9	W. by S.	0	−13			
			S.	−83 21·9	W. by S.	0	−13			
			N.	−83 17·2	W. by S.	0	−13	−83 33	−83 33	A head swell.
			N.S.	−83 17·1	W. by S.	0	−13			
			Direct.	−83 21·9	W. by S.	0	−13			
	−70 04	183 36	Direct.	−83 25·0*	S. by W.	−75	−13	−84 53		A head swell.
11.	−70 06	181 50	Direct.	−82 47·0	S.W. by S.	−58	−12	−83 57		
	−70 10	181 34	Direct.	−82 58·5	S.W.	−47	−12			
			N.	−83 07·2	S.W.	−47	−12	−83 49		
			N.S.	−82 25·0	S.W.	−47	−12		−84 06	A heavy cross sea.
12.	−71 00	180 44	Direct.	−83 01·3	S.E. by S.	−58	−12			
			S.	−83 03·7	S.E. by S.	−58	−12			
			N.	−83 18·7	S.E. by S.	−58	−13	−84 18		
			N.S.	−83 12·7	S.E. by S.	−58	−13			
			Direct.	−83 05·5	S.E. by S.	−58	−12			
13.	−72 46	181 46	Direct.	−83 32·6	S.E. by S.	−59	−13			
			S.	−84 23·9	S.E. by S.	−59	−13			
			N.	−83 46·0	S.E. by S.	−59	−13	−85 01		
			N.S.	−83 45·2	S.E. by S.	−59	−13		−85 04	
			Direct.	−83 36·7	S.E. by S.	−59	−13			
			Direct.	−84 04·8	S.E.	−47	−13	−85 05		
14.	−73 23	183 04	Direct.	−84 36·5	S.E. ½ S.	−53	−13	−85 42	−86 02	Very much motion.
15.	−74 24	177 09	Direct.	−85 07·0	S.S.E. ½ E.	−63	−13	−86 23		
16.	−74 56	173 36	Direct.	−85 17·0	S.S.E.	−69	−14			
			S.	−85 51·8	S.S.E.	−69	−14			
			N.	−85 20·5	S.S.E.	−69	−14	−86 48		
			N.S.	−85 10·0	S.S.E.	−69	−13		−86 52	Very unsteady.
			Direct.	−85 21·0	S. by E. ½ E.	−74	−14	−86 49		
			Direct.	−86 03·6	S.E.	−48	−14	−87 06		
	−75 10	173 08	Direct.	−86 46·9	E.	+16	−14			
			S.	−87 28·5	E.	+16	−15			
			N.	−87 06·9	E.	+16	−14	−86 59	−86 59	
			N.S.	−86 56·4	E.	+16	−14			
			Direct.	−86 48·5	E.	+16	−14			
17.	−75 53	175 05	Direct.	−87 01·5	E.N.E.	+42	−14			
	−76 00	175 15	Direct.	−87 03·5	E.N.E.	+42	−14			
			S.	−87 29·1	E.N.E.	+42	−15			
			N.	−87 26·9	E.N.E.	+42	−15	−86 44	−86 44	
			N.S.	−87 06·3	E.N.E.	+42	−14			
			Direct.	−87 07·0	E.N.E.	+42	−14			
18.	−76 58	181 03	Direct.	−86 58·5	E.N.E.	+42	−14			
			S.	−87 17·7	E.N.E.	+42	−15			
			N.	−87 37·8	E.N.E.	+42	−15	−86 46	−86 46	
			N.S.	−87 18·8	E.N.E.	+42	−15			
			Direct.	−86 57·8	E.N.E.	+42	−14			

* This observation differs so widely from the others made on the same day, that, considering the unfavourable state of the weather, I have omitted it in the mean results: possibly the ship's head may have been W. by S. instead of S. by W., in which case the observation would agree well with the others.—E. S.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Feb. 19.	−76 42	184 09	Direct.	−87 24·5	N. by E.	+78	−15			
			S.	−86 57·7	N. by E.	+78	−14			
			N.	−87 15·6	N. by E.	+78	−15	−86 07	−86 07	Ship pitching.
			N.S.	−86 56·5	N. by E.	+78	−14			
			Direct.	−87 21·2	N. by E.	+78	−15			
	−76 46	186 15	Direct.	−87 08·0	N.N.E.	+75	−14	−86 07		
20.	−76 14	192 35	Direct.	−85 58·3	N.E. ½ E.	+60	−14	−85 12	−85 18	A head sea and much motion.
21.	−75 53	194 52	Direct.	−84 24 3	S.W.	−47	−13	−85 24		
22.	−76 42	194 48	Direct.	−84 03·9	S.E. by S.	−60	−13			
			S.	−84 19·6	S.E. by S.	−60	−13			
			N.	−84 24·0	S.E. by S.	−60	−13	−85 25	−85 25	A swell from the southward.
			N.S.	−84 10·5	S.E. by S.	−60	−13			
			Direct.	−84 04·0	S.E. by S.	−60	−13			
	−76 42	194 10	Direct.	−84 56·5	E.S.E.	−17	−13	−85 26		
	−77 05	194 38	Direct.	−84 53·0	E. by S.	0	−13			
			S.	−85 36·6	E. by S.	0	−14			
			N.	−85 16·0	E. by S.	0	−14	−85 24	−85 24	
			N.S.	−85 13·0	E. by S.	0	−14			
			Direct.	−84 55·0	E. by S.	0	−13			
23.	−77 49	197 24	Direct.	−84 26·5	E. by S.	0	−13	−84 40		
			Direct.	−84 05·3	S.W. by W.	−33	−13	−84 51		
	−78 07	197 44	Direct.	−84 40·3	E. ½ S.	+ 8	−13	−84 45	−84 49	
	−78 07	197 46	Direct.	−84 51·9	W. by N.	+30	−13	−84 35		
24.	−76 55	198 40	Direct.	−84 12·0	S.W.	−47	−13	−85 12		
25.	−74 50	193 45	Direct.	−84 41·0	W.	+15	−13			
			S.	−84 57·7	W.	+15	−13			
			N.	−85 13·0	W.	+15	−14	−84 53		
			N.S.	−84 50·0	W.	+15	−13		−84 49	
			Direct.	−84 50·3	W. by N.	+30	−13	−84 33		
			Direct.	−83 27·2	S.S.W.	−68	−13	−84 48		
26.	−72 46	189 59	Direct.	−85 15·7	N.W. by W.	+57	−14			
			S.	−85 38·0	N.W. by W.	+57	−14			
			N.	−85 14·5	N.W. by W.	+57	−14	−84 38	−84 38	
			N.S.	−85 25·5	N.W. by W.	+57	−14			
			Direct.	−85 11·3	N.W. by W.	+57	−13			
27.	−72 01	187 35	Direct.	−83 38·0	W.S.W.	−16	−13			
			S.	−83 48·2	W.S.W.	−16	−13			
			N.	−83 44·1	W.S.W.	−16	−13	−84 10	−84 10	
			N.S.	−83 44·2	W.S.W.	−16	−13			
			Direct.	−83 40·8	W.S.W.	−16	−13			
28.	−71 08	184 59	Direct.	−84 05·5	W.	+15	−13			
			S.	−84 18·4	W.	+15	−13			
			N.	−84 06·5	W.	+15	−13			
			N.S.	−84 10·4	W.	+15	−13	−84 04	−84 04	
			Direct.	−84 04·5	W.	+15	−13			
			Direct.	−83 48·6	W.	+15	−13			
Mar. 1.	−69 52	180 04	Direct.	−84 35·5	W. by N.	+33	−13			
			S.	−83 59·2	W. by N.	+33	−13			
			N.	−83 45·0	W. by N.	+33	−13	−83 34	−83 34	
			N.S.	−83 39·7	W. by N.	+33	−13			
			Direct.	−83 32·0	W. by N.	+33	−13			
	−69 44	179 53	Direct.	−84 59·1	N. by E.	+93	−13			
			S.	−84 36·6	N. by E.	+93	−13			
			N.	−84 54·2	N. by E.	+93	−13	−83 31	−83 31	A northerly swell.
			N.S.	−84 52·0	N. by E.	+93	−13			
			Direct.	−84 54·0	N. by E.	+93	−13			

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections.		True Inclination.		Remarks.
						Ship's attraction.	Index.			
	° ′	° ′		° ′		′	′	° ′	° ′	
Mar. 2.	−68 04	183 25	Direct.	−83 43·3	N.N.E.	+90	−13			
			S.	−83 54·0	N.N.E.	+90	−13			
			N.	−83 50·2	N.N.E.	+90	−13	−82 28		
			N.S.	−83 38·2	N.N.E.	+90	−13			
			Direct.	−83 37·5	N.N.E.	+90	−13		−82 13	
			Direct.	−83 03·2	N.E. by N.	+82	−12			
			S.	−83 14·4	N.E. by N.	+82	−13			
			N.	−83 12·7	N.E. by N.	+82	−13	−81 57		
			N.S.	−83 04·7	N.E. by N.	+82	−12			
			Direct.	−82 59·0	N.E. by N.	+82	−12			
3.	−67 32	185 09	Direct.	−82 31·0	E.N.E.	+51	−12			
			S.	−82 41·5	E.N.E.	+51	−12			
			N.	−82 44·3	E.N.E.	+51	−12	−81 56		
			N.S.	−82 23·6	E.N.E.	+51	−12		−81 51	
			Direct.	−82 48·7	N.E. by N.	+81	−12	−81 40		
	−67 28	185 33	Direct.	−82 34·8	N.E.	+74	−12	−81 33		
4.	−67 29	188 11	Direct.	−80 39·5	W.S.W.	−20	−11	−81 11		A very heavy sea and much motion.
5.	−67 16	188 10	Direct.	−82 05·6	N. by E.	+91	−12			
			N.	−82 37·2	N. by E.	+91	−12	−80 59	−81 02	A very heavy swell from the westward.
			N.S.	−82 29·0	N. by E.	+91	−12			
			Direct.	−81 59·0	N. by E.	+91	−12			
6.	−65 25	191 48	Direct.	−80 28·3	N. by E.	+89	−11			
			N.	−80 41·9	N. by E.	+89	−11			
			N.S.	−80 54·6	N. by E.	+89	−11	−79 19	−79 19	Much motion.
			Direct.	−80 31·8	N. by E.	+89	−11			
	−65 06	192 21	Direct.	−80 24·0	N. by E.	+89	−11			
7.	−63 30	194 22	Direct.	−79 37·0	N. by E.	+88	−11			
			Direct.	−79 31·3	N. by E.	+88	−11			
			S.	−79 44·5	N. by E.	+88	−11			
			N.	−79 08·1	N. by E.	+88	−10	−78 11	−78 11	
			N.S.	−79 20·2	N. by E.	+88	−11			
			Direct.	−79 27·4	N. by E.	+88	−11			
8.	−62 16	196 10	Direct.	−78 35·1	N. by E.	+87	−10			
			S.	−78 40·4	N. by E.	+87	−10			
			N.	−78 30·5	N. by E.	+87	−10	−77 17	−77 17	
			N.S.	−78 34·0	N. by E.	+87	−10			
			Direct.	−78 31·9	N. by E.	+87	−10			
9.	−61 14	198 38	Direct.	−77 33·0	N.E. by N.	+76	−10			
			S.	−78 15·5	N.E. by N.	+76	−10			
			N.	−77 36·7	N.E. by N.	+76	−10	−76 34	−76 34	
			N.S.	−77 24·7	N.E. by N.	+76	−10			
	−60 58	199 11	Direct.	−77 23·8	N.E. by N.	+76	−10			
	−60 50	200 11	Direct.	−76 36·5	N.E. by N.	+75	− 9			
			S.	−77 19·5	N.E. by N.	+75	−10			
			N.	−76 31·7	N.E. by N.	+75	− 9	−75 33	−75 33	
			N.S.	−76 09·5	N.E. by N.	+75	− 9			
			Direct.	−76 34·0	N.E. by N.	+75	− 9			
10.	−60 18	203 55	Direct.	−75 33·0	E.N.E.	+48	− 9	−74 54		
	−60 18	204 11	Direct.	−75 23·0	E. by N.	+33	− 9			
			S.	−76 07·5	E. by N.	+33	− 9		−75 08	A cross sea, ship pitching.
			N.	−76 18·0	E. by N.	+33	− 9	−75 11		
			N.S.	−75 48·2	E. by N.	+33	− 9			
			Direct.	−75 24·4	E. by N.	+33	− 9			
11.	−60 18	208 29	Direct.	−74 27·0	E. by N.	+33	− 9			Very much motion.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
								° ′	° ′	
Mar. 12.	−60° 13′	211° 34′	Direct.	−74° 06′·5	E. by N.	+33′	−8′			
			S.	−74 23·3	E. by N.	+33	−8			
			N.	−74 57·0	E. by N.	+33	−8			
			N.S.	−74 57·5	E. by N.	+33	−8	−74 21	−74 21	A heavy swell, ship very unsteady.
			Direct.	−74 18·0	E. by N.	+33	−8			
	−60 12	212 32	Direct.	−74 02·5	E. by N.	+33	−8			
13.	−60 00	216 12	Direct.	−73 56·0	N.E.	+67	−8	−72 57		
14.	−59 24	218 58	Direct.	−73 26·6	N.E. by E.	+59	−8			
			S.	−74 20·7	N.E. by E.	+59	−8			
			N.	−73 57·5	N.E. by E.	+59	−8			
			N.S.	−73 47·2	N.E. by E.	+59	−8	−73 13	−73 30	Very unsteady.
			Direct.	−73 35·3	N.E. by E.	+59	−8			
			Direct.	−75 17·5	N.E. by E.	+59	−9			
	−59 16	219 30	Direct.	−75 10·5	N.E. by E.	+59	−8			
			S.	−74 54·1	N.E. by E.	+59	−8			
			N.	−74 42·7	N.E. by E.	+59	−8	−74 03		
			N.S.	−74 49·5	N.E. by E.	+59	−8			
15.	−58 54	222 04	Direct.	−74 32·1	E.N.E.	+48	−8			
			S.	−74 07·2	E.N.E.	+48	−8			
			N.	−74 26·1	E.N.E.	+48	−8	−73 41		
			N.S.	−74 11·7	E.N.E.	+48	−8		−73 38	
			Direct.	−74 28·8	E.N.E.	+48	−8			
	−58 50	223 24	Direct.	−73 57·5	E. by N.	+33	−8	−73 31		
			Direct.	−73 55·0	E. by N.	+33	−8			
16	−59 00	227 32	Direct.	−73 11·8	E.	+19	−7			
			Direct.	−73 11·0	E.	+19	−7			
	−59 04	228 57	S.	−72 20·2	E.	+19	−7			
			N.	−73 06·0	E.	+19	−7	−72 57	−72 57	
			N.S.	−73 54·2	E.	+19	−8			
			Direct.	−73 14·5	E.	+19	−8			
			Direct.	−73 07·3	E.	+19	−7			
17.	−59 39	232 48	Direct.	−72 45·0	E. ½ S.	+12	−7			
			S.	−72 57·6	E. ½ S.	+12	−7			
			N.	−73 23·0	E. ½ S.	+12	−7	−72 54	−72 54	A great deal of motion.
			N.S.	−73 10·7	E. ½ S.	+12	−7			
			Direct.	−72 39·0	E. ½ S.	+12	−7			
	−59 45	233 53	Direct.	−72 24·5	E. ½ S.	+12	−7			
			S.	−73 00·5	E. ½ S.	+12	−7			
			N.	−73 16·7	E. ½ S.	+12	−7	−72 51	−72 51	A great deal of motion.
			N.S.	−73 03·0	E. ½ S.	+12	−7			
18.	−60 16	236 11	Direct.	−72 35·5	E. by S.	+ 4	−7			
			S.	−73 02·2	E. by S.	+ 4	−7			
			N.	−73 21·7	E. by S.	+ 4	−8	−73 00	−70 00	Ship unsteady.
			N.S.	−72 57·0	E. by S.	+ 4	−7			
			S.	−73 04·2	E.	+19	−7			
	−60 21	237 02	Direct.	−72 29·8	E.	+19	−7			
			S.	−73 16·5	E.	+19	−8			
			N.	−73 25·6	E.	+19	−8	−72 45	−72 45	Ship rolling deeply.
			N.S.	−73 01·3	E.	+19	−7			
			Direct.	−72 33·0	E.	+19	−7			
	−60 20	237 50	Direct.	−72 57·5	E. by N.	+33	−7			
			S.	−73 24·1	E. by N.	+33	−8			
			N.	−73 44·0	E. by N.	+33	−8	−72 56	−72 44	
			N.S.	−73 19·0	E. by N.	+33	−8			

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Mar. 18.	−60 20	237 50	Direct.	−73 15·0	E. by N. ½ N.	+40	−8			
	−60 19	238 00	Direct.	−72 24·5	E. by N. ½ N.	+40	−7			
			S.	−72 55·7	E. by N. ½ N.	+40	−7	−72 34	−72 44	
			N.	−73 24·6	E. by N. ½ N.	+40	−8			
			N.S.	−73 30·6	E. by N. ½ N.	+40	−8			
19.	−60 02	241 03	Direct.	−72 52·5	E.N.E.	+47	−7			
	−60 01	241 38	Direct.	−72 45·5	E.N.E.	+47	−7			
			S.	−73 47·5	E.N.E.	+47	−8	−72 40	−72 40	Much motion.
			N.	−73 43·0	E.N.E.	+47	−8			
			N.S.	−73 28·0	E.N.E.	+47	−8			
20.	−59 17	245 40	Direct.	−72 08·0	E.N.E.	+47	−7			
			S.	−72 12·0	E.N.E.	+47	−7			
			N.	−72 01·0	E.N.E.	+47	−7	−71 29	−71 29	
			N.S.	−72 14·0	E.N.E.	+47	−7			
			Direct.	−72 09·5	E.N.E.	+47	−7			
21.	−59 15	248 12	Direct.	−71 33·5	E. by N.	+33	−7			
			S.	−72 10·0	E. by N.	+33	−7			
			N.	−71 55·9	E. by N.	+33	−7	−71 26	−71 26	
			N.S.	−72 11·2	E. by N.	+33	−7			
			Direct.	−71 35·2	E. by N.	+33	−7			
	−59 04	248 50	Direct.	−71 53·5	N.E. ½ E.	+61	−7	−70 59		
	−58 58	249 24	Direct.	−71 46·0	N.E. by E.	+58	−7			
			S.	−72 01·2	N.E. by E.	+58	−7			
			N.	−71 53·0	N.E. by E.	+58	−7	−71 08	−71 04	
			N.S.	−72 14·7	N.E. by E.	+58	−7			
			Direct.	−71 30·6	E.N.E.	+47	−7	−70 51		
22.	−58 28	252 01	Direct.	−71 11·0	E. by N.	+33	−6	−70 44		
	−58 29	252 22	Direct.	−71 02·4	E. ½ N.	+26	−6			
			S.	−71 33·5	E. ½ N.	+26	−7			
			N.	−71 05·8	E. ½ N.	+26	−6	−70 52	−70 50	A head sea.
			N.S.	−71 07·4	E. ½ N.	+26	−6			
23.	−58 35	255 10	Direct.	−70 26·0	E. ½ N.	+26	−6			
			S.	−70 36·9	E. ½ N.	+26	−6			
			N.	−70 45·2	E. ½ N.	+26	−6	−70 11	−70 11	
			N.S.	−70 16·0	E. ½ N.	+26	−6			
			Direct.	−70 30·0	E. ½ N.	+26	−6			
24.	−58 44	257 49	Direct.	−70 04·5	E. ½ N.	+26	−6			
			S.	−70 29·6	E. ½ N.	+26	−6			
			N.	−70 24·7	E. ½ N.	+26	−6	−69 47	−69 47	
			N.S.	−69 49·2	E. ½ N.	+26	−6			
	−58 51	258 34	Direct.	−69 48·3	E. ½ N.	+26	−6			
25.	−58 56	263 52	Direct.	−68 52·8	E. by N. ½ N.	+40	−5			A heavy swell.
26.	−59 01	267 59	Direct.	−67 56·0	E. by N. ½ N.	+40	−5			
			S.	−68 21·7	E. by N. ½ N.	+40	−5			
			N.	−68 18·7	E. by N. ½ N.	+40	−5	−67 39	−67 39	
			N.S.	−67 56·8	E. by N. ½ N.	+40	−5			
			Direct.	−67 59·5	E. by N. ½ N.	+40	−5			
27.	−59 02	271 58	Direct.	−67 25·5	E.N.E.	+46	−5			
			S.	−68 44·6	E.N.E.	+46	−5			
			N.	−67 35·7	E.N.E.	+46	−5	−67 01	−67 01	Ship unsteady.
			N.S.	−67 13·7	E.N.E.	+46	−5			
			Direct.	−67 30·5	E.N.E.	+46	−5			

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
								° ′	° ′	
Mar. 28.	−58 55	276 30	Direct.	−66 10·0	N.E. by E.	+55	−4			
	−58 50	277 12	Direct.	−66 13·0	N.E. by E.	+55	−4			
			S.	−66 41·4	N.E. by E.	+55	−4	−65 27	−65 27	
			N.	−66 22·2	N.E. by E.	+55	−4			
			N.S.	−66 14·5	N.E. by E.	+55	−4			
			Direct.	−66 09·5	N.E. by E.	+55	−4			
29.	−58 23	280 03	Direct.	−65 40·5	N.E. ½ E.	+57	−4			
			S.	−65 56·7	N.E. ½ E.	+57	−4			
			N.	−65 46·0	N.E. ½ E.	+57	−4	−64 49	−64 49	
			N.S.	−65 28·5	N.E. ½ E.	+57	−4			
			Direct.	−65 36·0	N.E. ½ E.	+57	−4			
30.	−58 29	282 04	Direct.	−64 27·9	N.E. by E. ½ E.	+50	−3			
			S.	−64 27·7	N.E. by E. ½ E.	+50	−3	−63 44		
			N.	−64 39·2	N.E. by E. ½ E.	+50	−3		−63 41	
			N.S.	−64 29·9	N.E. by E. ½ E.	+50	−3			
	−58 28	282 32	Direct.	−64 22·0	N.E. ½ E.	+54	−3	−63 31		
31.	−58 34	285 44	Direct.	−63 52·3	N.E. ½ N.	+58	−3	−62 57		
			Direct.	−63 49·0	N.E. by N.	+60	−3		−63 05	A very heavy swell.
	−58 29	286 04	N.	−64 34·2	N.E. by N.	+60	−3	−63 7		
			N.S.	−64 10·0	N.E. by N.	+60	−3			
			Direct.	−63 43·0	N.E. by N.	+60	−3			
April 1.	−57 22	289 50	Direct.	−62 24·0	N.E. by N.	+56	−2			
			S.	−62 16·2	N.E. by N.	+56	−2			
			N.	−61 50·6	N.E. by N.	+56	−2	−61 15	−61 15	
			N.S.	−61 59·0	N.E. by N.	+56	−2			
			Direct.	−62 17·0	N.E. by N.	+56	−2			
2.	−57 10	292 11	Direct.	−59 31·0	E.N.E.	+44	−1			
			S.	−59 28·3	E.N.E.	+44	−1			
			N.	−59 55·5	E.N.E.	+44	−1	−58 45		
			N.S.	−58 59·0	E.N.E.	+44	0		−58 51	A swell from the westward.
			Direct.	−59 25·3	E.N.E.	+44	−1			
	−57 17	292 32	Direct.	−58 35·5	S.S.E.	−46	0	−59 21		
3.	−56 40	294 46	Direct.	−59 44·0	N.E.	+55	−1			
			S.	−60 36·7	N.E.	+55	−1			
			N.	−60 05·7	N.E.	+55	−1	−59 01	−59 01	
			N.S.	−59 36·5	N.E.	+55	−1			
			Direct.	−59 33·5	N.E.	+55	−1			
4.	−54 50	298 08	Direct.	−57 34·0	N. by E.	+54	0			
			N.	−57 00·3	N. by E.	+54	0	−56 10	−56 10	Too much motion to use S.
			N.S.	−57 10·0	N. by E.	+54	0			
			Direct.	−57 24·0	N. by E.	+54	0			
5.	−52 54	300 27	Direct.	−54 47·5	N.N.E.	+47	+2			
			S.	−54 56·6	N.N.E.	+47	+2			
			N.	−54 45·7	N.N.E.	+47	+2	−53 52	−53 52	
			N.S.	−54 30·7	N.N.E.	+47	+2			
			Direct.	−54 26·0	N.N E.	+47	+2			
6.	−52 36	301 18	Direct.	−54 23·8	N.N.E.	+41	+2	−53 41		
	−51 47	302 15	Direct.	−53 08·0	N.W. by N.	+42	+3	−52 23	−52 34	
			Direct.	−52 10·0	E. by S.	+18	+3	−51 39		
11.	Port Louis, Falkland Islands.		Direct.	−52 29·1	Observed on shore.					
			S.	−52 42·7						
	−51 32	301 53	N.	−52 37·9						
			N.S.	−52 41·2*			+3	−52 30	−52 30	

* Observed on shore; face west.

Direct.	−53	48·9
S.	−53	29·2
N.	−53	45·9
N.S.	−53	41·5

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method. employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Aug. 19.	−51° 32′	301° 53′	Direct.	−52° 20′·6	Observed on shore.	′	+3′	−52° 30′	−52° 30′	
			S.	−52 35·6						
			N.	−52 24·4						
			N.S.	−52 31·5*						
17.	−51 32	301 53	Direct.	−52 46·5	W.	+37	+3	−52 14		
			S.	−53 00·9	W.	+37	+3			
			Direct.	−52 38·8	W.N.W.	+38	+3	−51 58		
			S.	−52 39·4	W.N.W.	+38	+3			
	At Anchor.		Direct.	−52 45·8	N.W.	+42	+3	−52 08		
			S.	−52 59·5	N.W.	+42	+3			
			Direct.	−52 53·0	N.N.W.	+41	+3	−52 06		
			S.	−52 46·4	N.N.W.	+41	+3			
			Direct.	−52 54·0	N.	+41	+3	−52 09		
			S.	−52 52·3	N.	+41	+3			
			Direct.	−52 37·5	N.N.E.	+41	+3	−51 57		
			S.	−52 44·0	N.N.E.	+41	+3			
			Direct.	−52 42·5	N.E.	+42	+3	−51 58		
			S.	−52 43·2	N.E.	+42	+3			
			Direct.	−52 42·2	E.N.E.	+38	+3	−52 02		
			S.	−52 44·7	E.N.E.	+38	+3			
			Direct.	−52 32·0	E.	+37	+3	−51 47	−52 05	
			S.	−52 21·5	E.	+37	+3			
			Direct.	−52 31·0	E.S.E.	+ 9	+3	−52 13		
			S.	−52 20·1	E.S.E.	+ 9	+3			
			Direct.	−52 13·2	S.E.	−14	+3	−52 29		
			S.	−52 22·6	S.E.	−14	+3			
			Direct.	−51 51·7	S.S.E.	−32	+3	−52 33		
			S.	−52 16·2	S.S.E.	−32	+3			
			Direct.	−51 21·0	S.	−40	+3	−52 13		
			S.	−51 51·0	S.	−40	+3			
			Direct.	−51 33·0	S.S.W.	−32	+3	−51 58		
			S.	−51 25·0	S.S.W.	−32	+3			
			Direct.	−51 51·0	S.W.	−14	+3	−51 35		
			S.	−51 40·7	S.W.	−14	+3			
			Direct.	−52 22·0	W.S.W.	+ 9	+3	−52 05		
			S.	−52 12·5	W.S.W.	+ 9	+3			
			Direct.	−52 46·8	W.	+37	+3	−52 07		

To obtain corrections for the ship's attraction.

* Observed on shore; face west.

Direct.	−53° 34′·2
S.	−53 31·8
N.	−53 24·3
N.S.	−53 21·8

Observations of the Inclination made in Her Majesty's Ship Terror, with Needle F. C. B., between April 1841 and August 1842.

Observers Captain Francis Rawdon Crozier, and Mr. Thomas Moore, Mate, R.N.

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Apr. 19.	Hobarton Magnetic Observatory.		Direct.	−70 29·6		....	−35			A spare needle (marked C.) was used as deflector N. and deflector S.: and the magnets of the apparatus as Mag. N. Mag. S. and Mag. N.S.
			Direct.	−70 25·9		....	−35			
	−42 52	147 24*	Def. N.	−69 33·5	Observed on shore.	....	−81			
			Def. S.	−70 17·9		....	−35	−70 52	−70 52	
			Mag. N.S.	−70 09·6		....	−35			
			Mag. N.	−70 09·9		....	−35			
			Mag. S.	−70 10·7†		....	−35			
July 7.	Running out of Storm Bay.		Direct.	−69 46·5	S.E. ¾ E.	−32	−35			
			Def. N.	−69 29·9	S.E. ¾ E.	−32	−81	−71 00	−71 00	Ship steady.
			Def. S.	−69 38·8	S.E. ¾ E.	−32	−35			
			Direct.	−69 51·2	S.E. ¾ E.	−32	−35			
8.	−43 03	148 20	Direct.	−70 58·0	W. ½ N.	+27	−35			
			Def. N.	−70 50·4	W. ½ N.	+27	−81	−71 18		
			Def. S.	−71 02·0	W. ½ N.	+27	−35			
			Direct.	−71 04·0	W. ½ N.	+27	−35		−70 44	Ship very steady.
9.	−42 24	149 30	Direct.	−70 43·3	N.N.W.	+76	−35			
			Def. N.	−70 34·1	N.N.W.	+76	−81	−70 10		
			Def. S.	−70 36·0	N.N.W.	+76	−35			
			Direct.	−70 45·5	N.N.W.	+76	−35			
10.	−40 51	149 28	Direct.	−69 42·7	N. by W.	+78	−35			
			Def. N.	−69 19·7	N. by W.	+78	−81	−69 05	−69 05	Ship very steady.
			Def. S.	−69 37·7	N. by W.	+78	−35			
			Direct.	−69 47·0	N. by W.	+78	−35			
11.	−38 17	150 22	Direct.	−67 41·3	N. by E.	+73	−35			
			Def. N.	−67 23·3	N. by E.	+73	−81	−66 57	−66 57	Ship very steady.
			Def. S.	−67 07·0	N. by E.	+73	−35			
			Direct.	−67 42·7	N. by E.	+73	−35			

* Observations at Hobarton to obtain corrections for the ship's attraction.

June 22. At anchor

Direct...	−70 14·3	W.	Direct... −69 54·9 E.
Def. N...	−69 52·5	W.	Def. N... −69 21·9 E.
Direct...	−69 59·0	W.S.W.	Direct... −70 14·1 E.N.E.
Def. N...	−69 38·4	W.S.W.	Def. N... −69 51·5 E.N.E.
Direct...	−69 24·5	S.W.	Direct... −70 21·4 N.E.
Def. N...	−68 49·9	S.W.	Def. N... −70 12·0 N.E.
Direct...	−68 57·0	S.S.W.	Direct... −70 31·6 N.N.E.
Def. N...	−68 38·2	S.S.W.	Def. N... −70 16·9 N.N.E.
Direct...	−68 37·5	S.	Direct... −70 48·2 N.
Def. N...	−68 30·9	S.	Def. N... −70 28·2 N.
Direct...	−68 40·0	S.S.E.	Direct... −71 01·8 N.N.W.
Def. N...	−68 14·3	S.S.E.	Def. N... −70 42·3 N.N.W.
Direct...	−68 52·2	S.E.	Direct... −70 59·6 N.W.
Def. N...	−68 26·4	S.E.	Def. N... −70 13·9 N.W.
Direct...	−69 22·6	E.S.E.	Direct... −70 47·6 W.N.W.
Def. N...	−68 59·1	E.S.E.	Def. N... −70 32·5 W.N.W.

† Observed on shore; face west.

Direct.....	−70 39·9	Mag. N.S...	−70 54·4	Mag. S. ..... −70 39·9
Direct.....	−70 40·2	Mag. N.....	−70 54·4	Def. N. .... −71 25·9
Def. S.....	−70 40·0			

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
								° ′	° ′	
July 12.	−37° 28′	151° 30′	Direct.	−66° 45′·1	N.E. ½ N.	+63′	−35′			
			Def. N.	−66 40·0	N.E. ½ N.	+63	−81			
			Def. S.	−66 19·1	N.E. ½ N.	+63	−35	−66 22	−66 22	Ship steering steadily.
			Direct.	−66 49·7	N.E. ½ N.	+63	−35			
13.	−36 21	151 39	Direct.	−66 24·5	N.N.W. ¼ W.	+69	−35			
			Def. N.	−66 35·9	N.N.W. ¼ W.	+69	−81	−66 11	−66 11	Ship unsteady.
			Direct.	−66 29·1	N.N.W. ¼ W.	+69	−35			
14.	−34 06	151 19	Direct.	−63 25·9	N.	+67	−35			
			Def. N.	−63 08·4	N.	+67	−81			
			Def. S.	−63 11·9	N.	+67	−35	−62 58	−62 58	Steering steadily.
			Direct.	−63 29·6	N.	+67	−35			
19.	Garden Island, Sydney.		Direct.	−62 29·3*		....	−35			
			Def. N.	−61 36·7		....	−81			
	−33 51	151 17	Def. S.	−62 29·8		....	−35			
			Mag. N.	−62 15·2	Observed on shore.	....	−35	−62 59	−62 59	
			Mag. S.	−62 17·4		....	−35			
			Mag. N.S.	−62 14·0		....	−35			
			Direct.	−62 28·8		....	−35			
30.	At anchor.		Direct.	−62 36·6	W. by S.	+12	−35	−63 00		
Aug. 4.			Direct.	−63 06·1	W.	+25	−35	−63 16		
			Direct.	−63 03·3	W. ½ S.	+18	−35	−63 20		
5.			Direct.	−62 06·4	S.W. by W.	−16	−35	−62 57		
			Direct.	−62 16·0	S.W. ½ W.	−25	−35	−63 16		
5.	Running out of harbour.		Direct.	−62 52·9	E. by N. ½ N.	+39	−35	−62 49	−62 52	Head swell on the 5th, steering badly.
			Def. N.	−62 14·1	E. by N. ½ N.	+39	−81	−62 56		
			Def. S.	−62 25·4	E. by N. ½ N.	+39	−35	−62 21		
			Mag. N.	−62 34·4	E. by N. ½ N.	+39	−35	−62 30		
			Mag. S.	−62 44·6	E. by N. ½ N.	+39	−35	−62 41		
			Direct.	−62 43·5	E. by N. ½ N.	+39	−35	−62 40		
6.	−34 01	153 17	Direct.	−62 31·3	E. by N.	+35	−35			
			Def. N.	−62 06·1	E. by N.	+35	−81			
			Def. S.	−62 28·2	E. by N.	+35	−35			
			Direct.	−62 27·2	E. by N.	+35	−35			
	−33 54	153 54	Direct.	−62 23·7	E. by N.	+35	−35	−62 30	−62 30	Steering badly.
			Def. N.	−62 02·6	E. by N.	+35	−81			
			Def. S.	−62 02·8	E. by N.	+35	−35			
			Direct.	−62 24·1	E. by N.	+35	−35			
7.	−33 56	156 38	Direct.	−61 40·6	E. by N.	+35	−35			
			Def. N.	−61 09·9	E. by N.	+35	−81			
			Def. S.	−61 40·7	E. by N.	+35	−35	−61 46	−61 46	Steering wildly.
			Direct.	−61 47·6	E. by N.	+35	−35			
8.	−33 31	160 20	Direct.	−61 17·4	E. by N.	+35	−35			
			Def. N.	−60 38·1	E. by N.	+35	−81			
			Def. S.	−60 22·1	E. by N.	+35	−35	−61 04	−61 04	Steering tolerably.
			Direct.	−61 14·2	E. by N.	+35	−35			
9.	−33 42	164 05	Direct.	−60 40·6	E.	+26	−35			
			Def. N.	−60 17·2	E.	+26	−81			
			Def. S.	−60 30·8	E.	+26	−35	−60 52	−60 52	Steering badly.
			Direct.	−60 37·7	E.	+26	−35			

* Observed on shore; face west.

Direct.	−62° 52′·9	Mag. N.....	−63° 00′·8
Def. N.	−63 00·7	Mag. S.....	−62 57·0
Def. S.	−62 52·4		

Mag. N. and S.	−63° 03′·7
Direct.	−62 52·3

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Aug. 10.	−33 47	166 39	Direct.	−59 59·9	E. by N. ½ N.	+39	−35			
			Def. N.	−59 56·7	E. by N. ½ N.	+39	−81			
			Def. S.	−59 38·1	E. by N. ½ N.	+39	−35	−60 02		
			Direct.	−60 02·2	E. by N. ½ N.	+39	−35			
	−33 42	166 36	Direct.	−59 42·3	E.	+26	−35			
			Def. N.	−59 00·3	E.	+26	−81			
			Def. S.	−59 42·7	E.	+26	−35		−59 55	Long swell, motion quick, steering steadily.
			Mag. N.	−59 21·1	E.	+26	−35	−59 49		
			Mag. S.	−59 39·9	E.	+26	−35			
			Direct.	−60 02·2	E. by N.	+36	−35			
11.	−33 34	167 37	Direct.	−60 13·9	N.E. by E.	+50	−35			
			Def. N.	−59 18·4	N.E. by E.	+50	−81			
			Def. S.	−60 03·5	N.E. by E.	+50	−35			
			Mag. N.	−60 04·1	N.E. by E.	+50	−35	−59 49		
			Mag. S.	−60 01·4	N.E. by E.	+50	−35		−59 58	Wind light, with a heavy swell, motion quick.
			Mag. N.S.	−59 54·0	N.E. by E.	+50	−35			
			Direct.	−60 09·5	N.E. by E.	+50	−35			
	−33 31	167 41	Direct.	−59 53·1	E.	+26	−35	−60 07		
			Def. N.	−59 17·2	E.	+26	−81			
12.	−33 00	169 20	Direct.	−58 59·8	E.N.E.	+43	−35			
			Def. N.	−58 22·6	E.N.E.	+43	−81			
			Def. S.	−58 56·9	E.N.E.	+43	−35			
			Mag. N.	−58 36·5	E.N.E.	+43	−35	−58 43		
			Mag. S.	−58 23·1	E.N.E.	+43	−35		−58 43	Motion quick, steering well.
			Direct.	−58 56·7	E.N.E.	+43	−35			
			Direct.	−59 10·4	N.E.	+52	−35			
			Mag. N.S.	−58 40·5	N.E.	+52	−35	−58 43		Ship unsteady.
			Direct.	−59 09·1	N.E.	+52	−35			
13.	−32 12	170 27	Direct.	−56 21·9	S.E. by E.	−10	−35			
			Def. N.	−56 00·5	S.E. by E.	−10	−81			
			Def. S.	−56 18·1	S.E. by E.	−10	−35	−57 13		
			Direct.	−56 24·6	S.E. by E.	−10	−35			
14.	−32 11	171 20	Direct.	−56 58·5	S.E. by E.	−10	−35			
			Def. N.	−56 11·3	S.E. by E.	−10	−81		−57 28	Much motion, steering well.
			Def. S.	−56 40·0	S.E. by E.	−10	−35			
			Mag. N.	−56 46·1	S.E. by E.	−10	−35	−57 36		
			Mag. N.S.	−56 55·9	S.E. by E.	−10	−35			
			Mag. S.	−56 49·8	S.E. by E.	−10	−35			
			Direct.	−56 51·0	S.E. by E.	−10	−35			
15.	−33 55	171 59	Direct.	−57 39·5	E. by S.	+14	−35	−58 17		
			Def. N.	−57 06·2	E. by S.	+14	−81			
			Direct.	−58 22·1	E. ½ N.	+32	−35		−58 24	A head sea, table very unsteady.
			Def. N.	−57 57·4	E. ½ N.	+32	−81	−58 32		
			Direct.	−58 20·8	E. ½ N.	+32	−35			
	−33 58	172 06	Direct.	−57 57·7	E.S.E.	+ 4	−35			
			Def. N.	−57 32·5	E.S.E.	+ 4	−81			
			Def. S.	−57 22·1	E.S.E.	+ 4	−35			
			Mag. N.	−57 24·9	E.S.E.	+ 4	−35	−58 14	−58 14	Head sea, steering badly, ship unsteady.
			Mag. N.S.	−57 30·0	E.S.E.	+ 4	−35			
			Mag. S.	−57 22·9	E.S.E.	+ 4	−35			
			Direct.	−58 00·5	E.S.E.	+ 4	−35			
16.	−34 15	172 50	Direct.	−59 25·6	N.W. ½ N.	+51	−35			
			Def. N.	−59 00·3	N.W. ½ N.	+51	−81			
			Def. S.	−58 46·2	N.W. ½ N.	+51	−35			
			Mag. N.	−59 01·4	N.W. ½ N.	+51	−35	−58 48		Head sea, steering badly, ship unsteady.
			Mag. N.S.	−58 55·8	N.W. ½ N.	+51	−35		−58 48	

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Aug. 16.	−34° 15′	172° 50′	Mag. S.	−58° 08′·6	N.W. ½ N.	+51′	−35′	−58° 48′	−58° 48′	Head sea, steering badly, ship unsteady.
			Direct.	−59 24·6	N.W. ½ N.	+51	−35			
			Direct.	−58 26·9	E. by S. ½ S.	+ 7	−35			
			Mag. N.S.	−58 04·7	E. by S. ½ S.	+ 7	−35	−58 46		
			Direct.	−58 23·1	E. by S. ½ S.	+ 7	−35			
17.	−34 24	173 43	Direct.	−58 33·2	E. by S. ½ S.	+ 7	−35			
			Def. N.	−58 21·7	E. by S. ½ S.	+ 7	−81			
			Def. S.	−58 23·3	E. by S. ½ S.	+ 7	−35			
			Mag. N.	−58 25·9	E. by S. ½ S.	+ 7	−35	−59 00	−59 00	Strong wind, a good deal of motion.
			Mag. N.S.	−58 25·5	E. by S. ½ S.	+ 7	−35			
			Mag. S.	−58 21·4	E. by S. ½ S.	+ 7	−35			
			Direct.	−58 26·8	E. by S. ½ S.	+ 7	−35			
18.	Running into the Bay of Islands.		Direct.	−58 20·6	S.W.	−30	−35			
			Def. N.	−58 08·4	S.W.	−30	−81	−59 36	−59 36	Heavy sea, steering wildly.
			Direct.	−58 19·2	S.W.	−30	−35			
Oct. 21.	Bay of Islands, New Zealand.		Direct.	−59 00·4			−35	−59 34		
			Def. N.	−57 57·5			−81	−59 18		
	−35 16	174 00	Def. S.	−59 05·1			−35	−59 40		
			Mag. N.	−58 41·0			−35	−59 16		
			Mag. N.S.	−58 43·6			−35	−59 19		
			Mag. S.	−58 38·4			−35	−59 13		
			Direct.	−59 01·0	Observed on shore.		−35	−59 36	−59 25	Magnetic observatory.
29.			Direct.	−59 00·8			−35	−59 36		
			Def. N.	−57 58·4			−81	−59 19		
			Def. S.	−58 59·2			−35	−59 34		
			Mag. N.	−58 38·7			−35	−59 14		
			Mag. N.S.	−58 40·3			−35	−59 15		
			Mag. S.	−58 37·1			−35	−59 12		
			Direct.	−59 02·2*			−35	−59 37		
Nov. 23.	Running out of Bay of Islands, about one mile from Piercy Island.		Direct.	−57 50·2	S.E. by E.	−17	−35	−58 42		
			Direct.	−58 34·3	E. by S.	+11	−35	−58 58		Very steady.
			Def. N.	−57 57·1	E. by S.	+11	−81	−59 07		
			Def. S.	−58 40·9	E. by S.	+11	−35	−59 05		
			Direct.	−58 34·2	E. by S.	+11	−35	−58 58		
24.	−36 20	177 27	Direct.	−59 13·5	E.S.E.	− 5	−35	−59 53	−59 20	
			Def. N.	−58 23·2	E.S.E.	− 5	−81	−59 49		
			Def. S.	−58 53·7	E.S.E.	− 5	−35	−59 34		
			Mag. N.	−58 39·2	E.S.E.	− 5	−35	−59 19		Ship unsteady.
			Mag. N.S.	−58 37·0	E.S.E.	− 5	−35	−59 17		
			Mag. S.	−58 37·3	E.S.E.	− 5	−35	−59 17		
			Direct.	−59 14·7	E.S.E.	− 5	−35	−59 55		
25.	−38 00	179 34	Direct.	−59 41·1	S.E. by S.	−40	−35	−60 56		
			Def. N.	−58 31·6	S.E. by S.	−40	−81	−60 33		
			Def. S.	−58 54·4	S.E. by S.	−40	−35	−60 09		
			Mag. N.	−58 54·0	S.E. by S.	−40	−35	−60 09		
			Mag. N.S.	−59 02·5	S.E. by S.	−40	−35	−60 17		
			Mag. S.	−58 55·4	S.E. by S.	−40	−35	−60 10		
			Direct.	−59 37·6	S.E. by S.	−40	−35	−60 53		
	−38 27	179 59	Direct.	−60 11·8	S.E. by E. ½ E.	−12	−35	−60 59	−60 37	Head sea, table unsteady.

* Observed on shore; face west.

Direct. . . .	Oct. 21.	−59° 47′·6	Oct. 29.	−59° 54′·6
Def. N. . .	Oct. 21.	−60 13·9	Oct. 29.	−60 10·7
Def. S. . .	Oct. 21.	−60 00·5	Oct. 29.	−60 06·3
Mag. N. . .	Oct. 21.	−60 10·3	Oct. 29.	−60 13·1
Mag. N.S.	Oct. 21.	−60 13·7	Oct. 29.	−60 01·2
Mag. S. . .	Oct. 21.	−60 07·4	Oct. 29.	−60 12·8
Direct. . . .	Oct. 21.	−59 48·6	Oct. 29.	−59 58·5

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Nov. 25.	−38° 27′	179° 59′	Def. N.	−59° 06′·2	S.E. by E. ½ E.	−12′	−81′	−60° 39′	−60° 37′	Head sea, table unsteady.
			Def. S.	−60 03·3	S.E. by E. ½ E.	−12	−35	−60 50		
			Mag. N.	−59 51·3	S.E. by E. ½ E.	−12	−35	−60 38		
			Mag. N.S.	−59 46·0	S.E. by E. ½ E.	−12	−35	−60 33		
			Mag. S.	−60 00·6	S.E. by E. ½ E.	−12	−35	−60 48		
			Direct.	−60 12·9	S.E. by E. ½ E.	−12	−35	−61 00		
	−38 57	181 18	Direct.	−60 00·6	E.S.E.	− 5	−35	−60 41		Heavy sea, much motion, observations not satisfactory.
26.	−38 48	182 05	Direct.	−61 08·6	E.S.E.	− 5	−35	−61 49		
			Def. N.	−60 00·6	E.S.E.	− 5	−81	−61 27		
			Def. S.	−60 37·7	E.S.E.	− 5	−35	−61 18		
			Direct.	−60 11·9	S.E.	−31	−35	−61 18		
			Def. N.	−59 07·5	S.E.	−31	−81	−61 00		Tolerably steady.
			Def. S.	−59 48·8	S.E.	−31	−35	−60 55		
			Mag. N.	−59 36·8	S.E.	−31	−35	−60 43		
			Mag. N.S.	−59 48·5	S.E.	−31	−35	−60 54		
			Mag. S.	−59 38·9	S.E.	−31	−35	−60 45	−61 21	
			Direct.	−60 08·7	S.E.	−31	−35	−61 15		
	−39 02	182 35	Direct.	−61 14·4	E.S.E.	− 5	−35	−61 54		
			Def. N.	−60 13·3	E.S.E.	− 5	−81	−61 39		
			Def. S.	−60 46·2	E.S.E.	− 5	−35	−61 26		
			Mag. N.	−60 42·2	E.S.E.	− 5	−35	−61 22		Head swell with considerable motion.
			Mag. N.S.	−60 51·5	E.S.E.	− 5	−35	−61 31		
			Mag. N.	−60 06·7	E.S.E.	− 5	−35	−61 47		
			Direct.	−61 13·9	E.S.E.	− 5	−35	−61 54		
27.	−39 14	182 54	Direct.	−60 24·6	S.E. by E.	−20	−35	−61 20		
			Def. N.	−59 12·0	S.E. by E.	−20	−81	−60 53		
			Def. S.	−60 30·1	S.E. by E.	−20	−35	−61 25		
			Mag. N.	−59 54·5	S.E. by E.	−20	−35	−60 50		Tolerably steady, steering well.
			Mag. N.S.	−59 55·1	S.E. by E.	−20	−35	−60 50		
			Mag. S.	−60 15·2	S.E. by E.	−20	−35	−61 10		
			Direct.	−60 31·5	S.E. by E.	−20	−35	−61 27		
	−39 15	183 02	Direct.	−59 41·2	S. by E. ½ E.	−56	−35	−61 12		Slight motion.
			Direct.	−59 41·8	S. ½ E.	−61	−35	−61 18	−61 15	
	−39 31	183 00	Direct.	−59 51·6	S. by E.	−60	−35	−61 27		Table steady.
			Def. N.	−59 13·4	S. by E.	−60	−81	−61 34		
			Def. S.	−59 59·5	S. by E.	−60	−35	−61 34		
			Mag. N.	−59 23·9	S. by E.	−60	−35	−60 59		
			Mag. N.S.	−59 30·9	S. by E.	−60	−35	−61 06		
			Mag. S.	−59 44·6	S. by E.	−60	−35	−61 20		
			Direct.	−59 55·0	S. by E.	−60	−35	−61 30		
28.	−40 35	183 00	Direct.	−61 14·0	E.S.E.	− 5	−35	−61 54		
			Direct.	−60 47·6	S.E.	−33	−35	−61 56		
			Def. N.	−59 58·5	S.E.	−33	−81	−61 53		
			Def. S.	−60 57·6	S.E.	−33	−35	−62 06		
			Mag. N.	−60 28·1	S.E.	−33	−35	−61 36		
			Mag. N.S.	−60 29·6	S.E.	−33	−35	−61 38		
			Mag. S.	−60 46·0	S.E.	−33	−35	−61 54		
			Direct.	−60 47·3	S.E.	−33	−35	−61 55	−61 56	
	−40 50	183 11	Direct.	−60 51·2	S.S.E. ½ E.	−48	−35	−62 14		
			Def. N.	−59 43·5	S.S.E. ½ E.	−48	−81	−61 53		
			Def. S.	−60 55·4	S.S.E. ½ E.	−48	−35	−62 18		
			Mag. N.	−60 13·9	S.S.E. ½ E.	−48	−35	−61 37		
			Mag. N.S.	−60 30·0	S.S.E. ½ E.	−48	−35	−61 53		
			Mag. S.	−60 30·1	S.S.E. ½ E.	−48	−35	−61 53		
			Direct.	−60 54·0	S.S.E. ½ E.	−48	−35	−62 17		Slight motion, steering well.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Nov. 29.	−41 34	183 40	Direct.	−61 27·5	s. by E.	−60	−35	−63 03		Slight motion, steering well.
			Def. N.	−60 27·5	s. by E.	−60	−81	−62 49		
			Def. S.	−61 31·3	s. by E.	−60	−35	−63 06		
			Mag. N.	−61 37·1	s. by E.	−60	−35	−63 12	−62 57	
			Mag. N.S.	−61 03·5	s. by E.	−60	−35	−62 39		
			Mag. S.	−60 58·9	s. by E.	−60	−35	−62 34		
			Direct.	−61 44·5	s. by E.	−60	−35	−63 19		
	−42 40	183 46	Direct.	−62 23·7	s.	−64	−35	−64 03		
			Def. N.	−61 02·1	s.	−64	−81	−63 27		
			Def. S.	−62 08·6	s.	−64	−35	−63 48		
			Mag. N.	−61 54·9	s.	−64	−35	−63 34	−63 46	
			Mag. N.S.	−62 03·6	s.	−64	−35	−63 43		
			Mag. S.	−62 01·2	s.	−64	−35	−63 40		
			Direct.	−62 29·6	s.	−64	−35	−64 09		
30.	−43 33	183 10	Direct.	−63 26·2	s. ½ w.	−63	−35	−65 04		
			Def. N.	−62 29·3	s. ½ w.	−63	−81	−64 53		
			Def. S.	−63 58·6	s. ½ w.	−63	−35	−65 37		
			Mag. N.	−63 16·8	s. ½ w.	−63	−35	−64 55		Table steady, steering well.
			Mag. N.S.	−62 58·2	s. ½ w.	−63	−35	−64 36		
			Mag. S.	−63 46·3	s. ½ w.	−63	−35	−65 24		
			Direct.	−63 26·2	s. ½ w.	−63	−35	−65 04		
	−43 50	183 00	Direct.	−63 43·0	s. by w.	−62	−35	−65 20	−65 22	
	−44 15		Direct.	−64 07·3	s. by w.	−62	−35	−65 44		
			Def. N.	−63 29·4	s. by w.	−62	−81	−65 52		
			Def. S.	−63 59·7	s. by w.	−62	−35	−65 37		
			Mag. N.	−63 51·9	s. by w.	−62	−35	−65 29		Cross sea, motion slight.
			Mag. N.S.	−63 52·9	s. by w.	−62	−35	−65 30		
			Mag. S.	−63 58·1	s. by w.	−62	−35	−65 35		
			Direct.	−64 11·4	s. by w.	−62	−35	−65 48		
Dec. 1.	−45 30	183 12	Direct.	−65 46·1	S.E. by E.	−24	−35	−66 45		
			Def. N.	−65 01·6	S.E. by E.	−24	−81	−66 47		
			Def. S.	−65 19·5	S.E. by E.	−24	−35	−66 19		
			Mag. N.	−65 14·3	S.E. by E.	−24	−35	−66 13		
			Mag. N.S.	−65 31·7	S.E. by E.	−24	−35	−66 31		
			Mag. S.	−66 00·8	S.E. by E.	−24	−35	−67 00		
			Direct.	−65 40·0	S.E. by E.	−24	−35	−66 39		
	−45 48	183 25	Direct.	−65 43·9	S.E. ½ E.	−31	−35	−66 50	−66 43	Much pitching, steering well.
			Def. N.	−64 55·1	S.E. ½ E.	−31	−81	−66 47		
			Def. S.	−65 36·8	S.E. ½ E.	−31	−35	−66 43		
			Mag. N.	−65 54·2	S.E. ½ E.	−31	−35	−67 00		
			Mag. N.S.	−65 40·5	S.E. ½ E.	−31	−35	−66 47		
			Mag. S.	−65 49·2	S.E. ½ E.	−31	−35	−66 55		
			Direct.	−65 47·4	S.E. ½ E.	−31	−35	−66 53		
2.	−47 13	184 30	Direct.	−66 30·4	S.E. by E. ½ E.	−18	−35	−67 23		
			Def. N.	−65 41·8	S.E. by E. ½ E.	−18	−81	−67 21		
			Def. S.	−66 43·2	S.E. by E. ½ E.	−18	−35	−67 36		Ship pitching, but steering well.
			Mag. N.	−66 31·4	S.E. by E. ½ E.	−18	−35	−67 24		
			Mag. N.S.	−66 30·3	S.E. by E. ½ E.	−18	−35	−67 23		
			Mag. S.	−66 37·0	S.E. by E. ½ E.	−18	−35	−67 30		
			Direct.	−66 34·6	S.E. by E. ½ E.	−18	−35	−67 28		
	−47 39	184 55	Direct.	−66 54·4	S.E. by E.	−26	−35	−67 55	−67 32	
			Def. N.	−65 36·6	S.E. by E.	−26	−81	−67 24		
			Def. S.	−66 40·1	S.E. by E.	−26	−35	−67 41		
			Mag. N.	−66 21·5	S.E. by E.	−26	−35	−67 23		Very steady.
			Mag. N.S.	−66 35·4	S.E. by E.	−26	−35	−67 36		
			Mag. S.	−66 34·7	S.E. by E.	−26	−35	−67 36		
			Direct.	−66 47·4	S.E. by E.	−26	−35	−67 48		

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Dec. 3.	−48 18	185 54	Direct.	−67 34·4	S.E. by E.	−27	−35	−68 36		
			Def. N.	−66 19·7	S.E. by E.	−27	−81	−68 08		
			Def. S.	−67 23·9	S.E. by E.	−27	−35	−68 26		
			Mag. N.	−67 17·7	S.E. by E.	−27	−35	−68 20		
			Mag. N.S.	−67 21·9	S.E. by E.	−27	−35	−68 24		
			Mag. S.	−67 17·1	S.E. by E.	−27	−35	−68 19		
			Direct.	−67 38·6	S.E. by E.	−27	−35	−68 41		
	−48 48	186 38	Direct.	−67 46·6	E.S.E.	−11	−35	−68 33	−68 40	Very steady.
	−49 05	186 54	Direct.	−68 01·5	S.E. by E. ½ E.	−19	−35	−68 56		
			Def. N.	−67 07·3	S.E. by E. ½ E.	−19	−81	−68 47		
			Def. S.	−67 55·0	S.E. by E. ½ E.	−19	−35	−68 49		
			Mag. N.	−67 49·5	S.E. by E. ½ E	−19	−35	−68 44		
			Mag. N.S.	−67 44·7	S.E. by E. ½ E.	−19	−35	−68 39		
			Mag. S.	−67 53·8	S.E. by E. ½ E.	−19	−35	−68 48		
			Direct.	−68 54·3	S.E. by E. ½ E.	−19	−35	−69 48		
4.	−49 24	187 23	Direct.	−68 53·5	N.E. by E.	+54	−35	−68 35		
			Direct.	−68 33·0	E. ½ N.	+26	−35	−68 42		
			Direct.	−68 29·8	E.	+20	−35	−68 45		
			Direct.	−68 42·3	E.N.E.	+45	−35	−68 32		Steady.
			Direct.	−68 28·7	W.S.W.	−12	−35	−69 16		
			Direct.	−68 45·7	W.	+20	−35	−69 01		
			Direct.	−68 52·2	E.	+20	−35	−69 07		
			Def. N.	−67 28·0	E.	+20	−81	−68 29	−68 59	
			Direct.	−68 48·0	E. by S.	+ 4	−35	−69 19		
			Def. N.	−67 29·5	E. by S.	+ 4	−81	−68 47		
			Def. S.	−68 52·0	E. by S.	+ 4	−35	−69 23		
			Mag. N.	−68 29·0	E. by S.	+ 4	−35	−69 00		Swell from northward.
			Mag. N.S.	−68 28·1	E. by S.	+ 4	−35	−68 59		Table steady.
			Mag. S.	−68 42·7	E. by S.	+ 4	−35	−69 14		
			Direct.	−69 01·0	E. by S.	+ 4	−35	−69 32		
5.	−49 23	188 54	Direct.	−68 43·9	E. by S.	+ 4	−35	−69 15		
			Def. N.	−67 31·6	E. by S.	+ 4	−81	−68 49		
			Def. S.	−68 42·2	E. by S.	+ 4	−35	−69 13		
			Mag. N.	−68 42 6	E. by S.	+ 4	−35	−69 14		
			Mag. N.S.	−68 40·1	E. by S.	+ 4	−35	−69 11		
			Mag. S.	−68 30·6	E. by S.	+ 4	−35	−69 02		
			Direct.	−68 44·2	E. by S.	+ 4	−35	−69 15		
	−49 38	189 44	Direct.	−68 15·9	E. by S.	+ 4	−35	−68 47	−68 55	Table steady.
			Def. N.	−67 25·5	E. by S.	+ 4	−81	−68 43		
			Def. S.	−68 06·1	E. by S.	+ 4	−35	−68 37		
			Mag. N.	−67 57·8	E. by S.	+ 4	−35	−68 29		
			Mag. N.S.	−68 01·6	E. by S.	+ 4	−35	−68 33		
			Mag. S.	−68 22·7	E. by S.	+ 4	−35	−68 54		
			Direct.	−68 14·3	E. by S.	+ 4	−35	−68 45		
6.	−49 50	190 46	Direct.	−68 12·9	E. by S.	+ 4	−35	−68 44		
			Def. N.	−67 22·6	E. by S.	+ 4	−81	−68 40		
			Def. S.	−68 09·6	E. by S.	+ 4	−35	−68 41		
			Mag. N.	−68 07·4	E. by S.	+ 4	−35	−68 38		
			Mag. N.S.	−68 05·2	E. by S.	+ 4	−35	−68 36		
			Mag. S.	−68 21·5	E. by S.	+ 4	−35	−68 53		Swell from northward.
			Direct.	−68 16·3	E. by S.	+ 4	−35	−68 47	−68 43	Table steady.
	−50 02	191 21	Direct.	−68 09·8	E. by S.	+ 4	−35	−68 41		
	−50 08	191 39	Direct.	−68 17·0	E. by S.	+ 4	−35	−68 48		
			Def. N.	−67 22·2	E. by S.	+ 4	−81	−68 39		
			Def. S.	−68 16·8	E. by S.	+ 4	−35	−68 48		
			Mag. N.	−68 09·2	E. by S.	+ 4	−35	−68 40		
			Mag. N.S.	−68 08·4	E. by S.	+ 4	−35	−68 39		
			Mag. S.	−68 18·2	E. by S.	+ 4	−35	−68 49		

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Dec. 7.	−50 32	191 52	Direct.	−68 24·2	S.E. by E.	−27	−35	−69 26		
			Def. N.	−67 47·4	S.E. by E.	−27	−81	−69 35		
			Def. S.	−68 18·1	S.E. by E.	−27	−35	−69 20		
			Mag. N.	−68 02·0	S.E. by E.	−27	−35	−69 04		
			Mag. N.S.	−67 50·3	S.E. by E.	−27	−35	−68 52		
			Mag. S.	−68 07·9	S.E. by E.	−27	−35	−69 10		
			Direct.	−68 28·1	S.E. by E.	−27	−35	−69 30		
	−50 45	192 19	Direct.	−68 31·2	S.E. ½ E.	−35	−35	−69 41	−69 25	Table steady.
			Def. N.	−67 31·3	S.E. ½ E.	−35	−81	−69 27		
			Def. S.	−68 08·4	S.E. ½ E.	−35	−35	−69 18		
			Mag. N.	−68 39·3	S.E. ½ E.	−35	−35	−69 49		
			Mag. N.S.	−68 30·9	S.E. ½ E.	−35	−35	−69 41		
			Mag. S.	−68 13·2	S.E. ½ E.	−35	−35	−69 23		
			Direct.	−68 30·3	S.E. ½ E.	−35	−35	−69 40		
8.	−51 37	194 00	Direct.	−69 18·9	E. by S.	+ 4	−35	−69 50		
			Def. N.	−68 23·8	E. by S.	+ 4	−81	−69 41		
			Def. S.	−69 20·4	E. by S.	+ 4	−35	−69 51		
			Mag. N.	−69 19·6	E. by S.	+ 4	−35	−69 51		
			Mag. N.S.	−69 13·8	E. by S.	+ 4	−35	−69 45		
			Mag. S.	−69 31·4	E. by S.	+ 4	−35	−70 02		
			Direct.	−69 22·4	E. by S.	+ 4	−35	−69 53		
			Direct.	−69 24·6	E. by S.	+ 4	−35	−69 56	−69 51	
	−52 00	194 53	Direct.	−69 29·8	E. by S.	+ 4	−35	−70 01		
			Def. N.	−68 30·1	E. by S.	+ 4	−81	−69 47		
			Def. S.	−69 17·1	E. by S.	+ 4	−35	−69 48		
			Mag. N.	−69 08·9	E. by S.	+ 4	−35	−69 40		
			Mag. N.S.	−69 11·7	E. by S.	+ 4	−35	−69 43		
			Mag. S.	−69 29·7	E. by S.	+ 4	−35	−70 01		Table steady, steering indifferently.
			Direct.	−69 27·0	E. by S.	+ 4	−35	−69 58		
9.	−52 14	197 49	Direct.	−69 41·0	E. by S.	+ 4	−35	−70 12		
			Def. N.	−68 37·6	E. by S.	+ 4	−81	−69 55		
			Def. S.	−69 29·3	E. by S.	+ 4	−35	−70 00		
			Mag. N.	−69 38·3	E. by S.	+ 4	−35	−70 09		
			Mag. N.S.	−69 56·9	E. by S.	+ 4	−35	−70 28		
			Mag. S.	−69 35·8	E. by S.	+ 4	−35	−70 07	−70 10	
			Direct.	−69 42·6	E. by S.	+ 4	−35	−70 14		
	−52 32	198 31	Direct.	−69 41·2	E. by S.	+ 4	−35	−70 12		Motion quick, steering wild.
10.	−53 01	202 16	Direct.	−69 47·1	E. by S.	+ 4	−35	−70 18		Strong wind, heavy sea.
			Mag. N.S.	−69 19·7	E. by S.	+ 4	−35	−69 51		
			Direct.	−69 56·5	E. by S.	+ 4	−35	−70 28		Motion violent, steering well.
11.	−52 51	203 56	Direct.	−69 53·3	E. ½ N.	+26	−35	−70 02		
			Def. N.	−68 59·6	E. ½ N.	+26	−81	−69 55		
			Def. S.	−69 59·1	E. ½ N.	+26	−35	−70 08		
			Mag. N.	−69 36·5	E. ½ N.	+26	−35	−69 45		
			Mag. N.S.	−69 30·2	E. ½ N.	+26	−35	−69 39	−70 01	Head sea, table not very steady.
			Mag. S.	−69 55·8	E. ½ N.	+26	−35	−70 05		
			Direct.	−70 04·7	E. ½ N.	+26	−35	−70 14		
			Direct.	−70 00·9	E. ½ S.	+12	−35	−70 24		
12.	−52 53	205 07	Direct.	−69 14·2	E.S.E	−12	−35	−70 01		
			Def. N.	−67 53·9	E.S.E.	−12	−81	−69 27		
			Def. S.	−68 55·7	E.S.E.	−12	−35	−69 43		
			Mag. N.	−68 45·1	E.S.E.	−12	−35	−69 32		
			Mag. N.S.	−68 19·8	E.S.E.	−12	−35	−69 07		A head swell, steering well.
			Mag. S.	−68 53·5	E.S.E.	−12	−35	−69 41		
			Direct.	−69 16·4	E.S.E.	−12	−35	−70 03		
	−53 12	205 40	Direct.	−69 19·3	E.S.E.	−12	−35	−70 06	−69 52	

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections.		True Inclination.		Remarks.
						Ship's attraction.	Index.			
Dec. 12.	−53° 31′	206° 14′	Direct.	−69° 18′·8	E.S.E.	−12′	−35′	−70° 06′	−69° 52′	Table steady, steering wild.
			Def. N.	−68 07·1	E.S.E.	−12	−81	−69 40		
			Def. S.	−69 05·5	E.S.E.	−12	−35	−69 53		A slight motion, steering well.
			Mag. N.	−69 07·0	E.S.E.	−12	−35	−69 54		
			Mag. N.S.	−69 01·4	E.S.E.	−12	−35	−69 51		
			Mag. S.	−69 58·3	E.S.E.	−12	−35	−70 45		
			Direct.	−69 19·5	E.S.E.	−12	−35	−70 06		
13.	−54 19	208 24	Direct.	−69 18·1	E.S.E.	−12	−35	−70 05		
			Def. N.	−68 59·2	E.S.E.	−12	−81	−70 32		
			Def. S.	−69 02·6	E.S.E.	−12	−35	−69 50		
			Mag. N.	−69 16·0	E.S.E.	−12	−35	−70 03		
			Mag. N.S.	−69 16·0	E.S.E.	−12	−35	−70 03		
			Mag. S.	−69 14·0	E.S.E.	−12	−35	−70 01	−70 10	Table steady, steering wildly.
			Direct.	−69 16·6	E.S.E.	−12	−35	−70 04		
	−54 53	209 24	Direct.	−69 32·9	E.S.E.	−12	−35	−70 20		
			Def. N.	−68 59·0	E.S.E.	−12	−81	−70 32		
			Def. S.	−69 28·8	E S.E.	−12	−35	−70 16		
			Mag. N.	−69 13·4	E.S.E.	−12	−35	−70 00		
			Mag. N.S.	−69 24·6	E.S.E.	−12	−35	−70 12		
			Mag. S.	−70 00·3	E.S.E.	−12	−35	−70 47		
			Direct.	−69 32·6	E.S.E.	−12	−35	−70 20		
			Direct.	−69 39·5	E.S.E.	−12	−35	−70 27		A heavy sea, ship steering badly.
			Def. N.	−68 55·8	E.S.E.	−12	−81	−70 29		
			Direct.	−68 52·9	S.E. by S.	−55	−35	−70 23	−70 21	A swell from the N.W.
			Def. N.	−68 11·4	S.E. by S.	−55	−81	−70 27		
			Def. S.	−68 27·0	S.E. by S.	−55	−35	−69 57		
			Mag. N.	−68 59·1	S.E. by S.	−55	−35	−70 29		Ship tolerably steady.
			Mag. N.S.	−68 46·1	S.E. by S.	−55	−35	−70 16		
			Mag. S.	−68 34·0	S.E. by S.	−55	−35	−70 04		
			Direct.	−68 52·1	S.E. by S.	−55	−35	−70 22		
14.	−56 14	211 43	Direct.	−70 08·2	S.E. by S.	−57	−35	−71 40		
			Def. N.	−69 12·9	S.E. by S.	−57	−81	−71 31		
			Def. S.	−70 10·1	S.E. by S.	−57	−35	−71 42		
			Mag. N.	−70 03·2	S.E. by S.	−57	−35	−71 35		
			Mag. N.S.	−70 06·2	S.E. by S.	−57	−35	−71 38		
			Mag. S.	−70 22·0	S.E. by S.	−57	−35	−71 54		
			Direct.	−70 16·1	S.E. by S.	−57	−35	−71 48	−71 41	Ship steady.
			Direct.	−70 17·8	S.E. by S.	−57	−35	−71 50		
			Def. N.	−69 11·7	S.E. by S.	−57	−81	−71 30		
			Def. S.	−70 12·1	S.E. by S.	−57	−35	−71 44		
			Mag. N.	−70 04·2	S.E. by S.	−57	−35	−71 36		
			Mag. N.S.	−70 00·2	S.E. by S.	−57	−35	−71 32		
			Mag. S.	−70 22·1	S.E. by S.	−57	−35	−71 54		
			Direct.	−70 17·2	S.E. by S.	−57	−35	−71 49		
	−56 30	211 50	Direct.	−70 19·5	S.E. by S.	−57	−35	−71 52		
			Def. N.	−69 29·1	S.E. by S.	−57	−81	−71 47		
			Def. S.	−70 12·7	S.E. by S.	−57	−35	−71 45		
			Mag. N.	−70 05·2	S.E. by S.	−57	−35	−71 37		
			Mag. N.S.	−69 59·7	S.E. by S.	−57	−35	−71 32		
			Mag. S.	−70 35·2	S.E. by S.	−57	−35	−72 07	−72 00	Ship steady.
			Direct.	−70 22·9	S.E. by S.	−57	−35	−71 55		
15.	−56 53	212 06	Direct.	−70 42·4	S.	−77	−35	−72 34		
			Direct.	−70 50·5	S. by E.	−75	−35	−72 40		
			Direct.	−70 27·5	S.S.E.	−69	−35	−72 12		
			Direct.	−70 30·8	S.E. by S.	−57	−35	−72 03		
			Def. N.	−69 33·8	S.E. by S.	−57	−81	−71 52		

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Dec. 15.	−56 53	212 06	Def. S.	−70 26·1	S.E. by S.	−57	−35	−71 58		
			Mag. N.	−70 12·5	S.E. by S.	−57	−35	−71 45		
			Mag. N.S.	−70 09·6	S.E. by S.	−57	−35	−71 42		
			Mag. S.	−70 34·0	S.E. by S.	−57	−35	−72 06		
			Direct.	−70 30·6	S.E. by S.	−57	−35	−72 03		
	−57 16	212 17	Direct.	−70 37·3	S.S.E.	−69	−35	−72 21		
			Def. N.	−70 00·6	S.S.E.	−69	−81	−72 31	−72 14	Ship very steady.
			Def. S.	−70 54·6	S.S.E.	−69	−35	−72 39		
			Mag. N.	−70 49·7	S.S.E.	−69	−35	−72 34		
			Mag. N.S.	−70 25·1	S.S.E.	−69	−35	−72 09		
			Mag. S.	−70 46·1	S.S.E.	−69	−35	−72 30		
			Direct.	−70 41·5	S.S.E.	−69	−35	−72 26		
16.	−57 44	212 59	Direct.	−71 03·3	S.S.E.	−70	−35	−72 48		
			Def. N.	−70 29·6	S.S.E.	−70	−81	−73 01		
			Def. S.	−71 08·2	S.S.E.	−70	−35	−72 53		
			Mag. N.	−71 09·6	S.S.E.	−70	−35	−72 55		
			Mag. N.S.	−71 02·8	S.S.E.	−70	−35	−72 48		
			Mag. S.	−71 15·7	S.S.E.	−70	−35	−73 01	−73 09	Ship steady, steering well.
			Direct.	−71 11·9	S.S.E.	−70	−35	−72 57		
	−58 28	213 08	Direct.	−71 56·4	S.S.E.	−70	−35	−73 41		
			Def. N.	−71 20·8	S.S.E.	−70	−81	−73 52		
			Def. S.	−71 52·3	S.S.E.	−70	−35	−73 37		
			Mag. N.	−71 39·7	S.S.E.	−70	−35	−73 25		
			Mag. N.S.	−71 23·9	S.S.E.	−70	−35	−73 09		
			Mag. S.	−71 59·3	S.S.E.	−70	−35	−73 44		
			Direct.	−72 04·4	S.S.E.	−70	−35	−73 49		
	−58 44	213 11	Direct.	−72 16·2	S.S.E.	−70	−35	−74 01		
			Def. N.	−71 24·5	S.S.E.	−70	−81	−73 56	−73 45	Ship steady, steering well.
			Def. S.	−72 22·6	S.S.E.	−70	−35	−74 08		
			Mag. N.	−71 57·1	S.S.E.	−70	−35	−73 42		
			Mag. N.S.	−71 47·8	S.S.E.	−70	−35	−73 33		
			Mag. S.	−72 01·3	S.S.E.	−70	−35	−73 46		
			Direct.	−72 16·1	S.S.E.	−70	−35	−74 01		
17.	−60 48	213 51	Direct.	−73 24·1	S.S.E.	−73	−35	−75 12		
			Def. N.	−72 33·2	S.S.E.	−73	−81	−75 07		
			Def. S.	−73 29·4	S.S.E.	−73	−35	−75 17		Slight motion, steering well.
			Mag. N.	−73 01·5	S.S.E.	−73	−35	−74 49		
			Mag. N.S.	−73 04·2	S.S.E.	−73	−35	−74 52		
			Mag. S.	−73 31·1	S.S.E.	−73	−35	−75 19		
			Direct.	−73 28·8	S.S.E.	−73	−35	−75 17		
	−61 37	213 54	Direct.	−74 10·9	S. ½ E.	−81	−35	−76 07	−75 32	
			Def. N.	−73 06·9	S. ½ E.	−81	−81	−75 49		
			Def. S.	−73 59·8	S. ½ E.	−81	−35	−75 56		
			Mag. N.	−73 52·8	S. ½ E.	−81	−35	−75 49		Ship steady,
			Mag. N.S.	−73 39·5	S. ½ E.	−81	−35	−75 36		
			Mag. S.	−74 08·6	S. ½ E.	−81	−35	−76 05		
			Direct.	−74 13·1	S. ½ E.	−81	−35	−76 09		
18.	−62 34	212 34	Direct.	−74 51·6	S. by E.	−79	−35	−76 46		
			Def. N.	−73 48·3	S. by E.	−79	−81	−76 28		
			Def. S.	−74 43·7	S. by E.	−79	−35	−76 38		
			Mag. N.	−74 23·1	S. by E.	−79	−35	−76 17		
			Mag. N.S.	−74 23·9	S. by E.	−79	−35	−76 18	−76 37	Ship steady, sailing amongst loose ice.
			Mag. S.	−74 38·9	S. by E.	−79	−35	−76 33		
			Direct.	−74 46·1	S. by E.	−79	−35	−76 40		
	−62 51	212 50	Direct.	−75 20·5	S. by W.	−79	−35	−77 14		

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
				° ′		′	′	° ′	° ′	
Dec. 19.	−63 06	210 55	Direct.	−75 52·3	s.s.w.	−74	−35	−77 41		
			Direct.	−75 45·3	s. by w.	−80	−35	−77 40		
			Def. N.	−74 56·9	s. by w.	−80	−81	−77 38		
			Def. S.	−75 35·6	s. by w.	−80	−35	−77 31		
			Mag. N.	−75 24·5	s. by w.	−80	−35	−77 20		
			Mag. N.S.	−75 21·2	s. by w.	−80	−35	−77 16	−77 37	Ship steady, sailing amongst loose ice.
			Mag. S.	−75 37·8	s. by w.	−80	−35	−77 33		
			Direct.	−75 51·8	s. by w.	−80	−35	−77 47		
	−63 21	209 55	Direct.	−76 08·3	s.w. by s.	−62	−35	−77 45		
			Direct.	−76 00·0	s.s.w. ½ w.	−68	−35	−77 43		
			Direct.	−77 00·8	w. by s. ¾ s.	−12	−35	−77 48		
			Direct.	−76 36·2	s.w. by w. ½ w.	−25	−35	−77 36		
20.	−63 36	208 20	Direct.	−76 13·7	s.s.w.	−74	−35	−78 03		
			Def. N.	−75 10·8	s.s.w.	−74	−81	−77 46		
			Def. S.	−76 04·8	s.s.w.	−74	−35	−77 54		
			Mag. N.	−75 45·5	s.s.w.	−74	−35	−77 35		
			Mag. N.S.	−75 44·8	s.s.w.	−74	−35	−77 34	−77 53	Ship steady, steering amongst loose ice.
			Mag. S.	−76 08·0	s.s.w.	−74	−35	−77 57		
			Direct.	−76 01·3	s. by w.	−80	−35	−77 56		
			Direct.	−76 24·9	s.w. by s.	−62	−35	−78 02		
			Direct.	−76 00·4	s.	−82	−35	−77 57		
			Direct.	−76 45·2	s.w.	−49	−35	−78 09		
			Direct.	−76 24·3	s.w. by s.	−62	−35	−78 01		
			Direct.	−76 45 5	s.w.	−49	−35	−78 10		
	−63 53	208 32	Direct.	−76 06 9	s.	−82	−35	−78 04		
			Def. N.	−75 01·3	s.	−82	−81	−77 44		
			Def. S.	−75 53·4	s.	−82	−35	−77 50	−77 56	Ship steady, steering amongst loose ice.
			Mag. N.	−75 44·5	s.	−82	−35	−77 42		
			Mag. N.S.	−75 36·8	s.	−82	−35	−77 34		
			Mag. S.	−75 57·7	s.	−82	−35	−77 55		
			Direct.	−76 08·9	s.	−82	−35	−78 06		
			Direct.	−76 15·3	s. by w.	−80	−35	−78 10		
21.	−64 11	206 35	Direct.	−76 32·9	s.s.w.	−75	−35	−78 23		
			Def. N.	−75 31·5	s.s.w.	−75	−81	−78 08		
			Def. S.	−76 29·6	s.s.w.	−75	−35	−78 20		
			Mag. N.	−76 10·0	s.s.w.	−75	−35	−78 00		
			Mag. N.S.	−76 01·2	s.s.w.	−75	−35	−77 51		
			Mag. S.	−76 00·8	s.s.w.	−75	−35	−77 51		
			Direct.	−76 43·1	s. ½ E.	−82	−35	−78 40	−78 30	Ship steady, sailing amongst loose ice.
			Direct.	−76 32·7	s. by E.	−81	−35	−78 29		
			Direct.	−76 41·8	s. by E. ½ E.	−78	−35	−78 35		
	−64 51	206 19	Direct.	−77 03·2	s. ¾ E.	−82	−35	−79 00		
			Direct.	−77 06·4	s. by w.	−81	−35	−79 02		
			Def. N.	−76 06·6	s. by w.	−81	−81	−78 49		
			Def. S.	−77 02·2	s. by w.	−81	−35	−78 58		
			Direct.	−77 04·7	s. by w.	−81	−35	−79 01		
22.	−65 19	205 08	Direct.	−77 29·4	s. ½ w.	−83	−35	−79 27		
			Def. N.	−76 37·6	s. ½ w.	−83	−81	−79 22		
			Def. S.	−77 20·3	s. ½ w.	−83	−35	−79 18		
			Mag. N.	−77 08·4	s. ½ w.	−83	−35	−79 06		
			Mag. N.S.	−76 59·9	s. ½ w.	−83	−35	−78 58		
			Mag. S.	−77 30·4	s. ½ w.	−83	−35	−79 28		
			Direct.	−77 28·6	s. ½ w.	−83	−35	−79 27		
			Direct.	−77 26·4	s.	−84	−35	−79 25		
	−65 34	205 00	Direct.	−77 27·8	s.	−84	−35	−79 27		
			Def. N.	−76 20·5	s.	−84	−81	−79 05	−79 16	Sailing amongst loose ice, very steady.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections.		True Inclination.		Remarks.
						Ship's attraction.	Index.			
Dec. 22.	−65° 34′	205° 00′	Def. S.	−77° 14′·7	S.	−84′	−35′	−79° 14′	−79° 16′	Sailing amongst loose ice, very steady.
			Mag. N.	−77 04·0	S.	−84	−35	−79 03		
			Mag. N.S.	−76 53·3	S.	−84	−35	−78 52		
			Mag. S.	−77 23·6	S.	−84	−35	−79 23		
			Direct.	−77 30·4	S. ¾ W.	−82	−35	−79 27		
23.	−65 47	204 19	Direct.	−79 54·8	N.E.	+69	−35	−79 21		
			Direct.	−79 45·9	N.E. ½ E.	+64	−35	−79 17		
			Direct.	−79 30·8	N.E. by E.	+59	−35	−79 07		
			Direct.	−77 34·8	S.	−84	−35	−79 34		
			Def. N.	−76 44·1	S.	−84	−81	−79 29		
			Direct.	−79 12·3	E. by N.	+32	−35	−79 15		
			Def. S.	−79 04·9	E. by N.	+32	−35	−79 08	−79 26	Sailing amongst loose ice, very steady.
			Mag. N.S.	−78 44·5	E. by N.	+32	−35	−78 48		
			Mag. S.	−77 15·9*	E. by N.	+32	−35	−77 19		
			Direct.	−78 10·8	S.W. ¼ S.	−55	−35	−79 41		
			Direct.	−77 46·2	S. by W.	−82	−35	−79 43		
			Def. N.	−77 23·0	S. by W.	−82	−81	−80 06		
			Direct.	−77 45·1	S. ¼ W.	−83	−35	−79 43		
			Direct.	−77 44·6	S. ¾ W.	−82	−35	−79 42		
			Direct.	−77 57·6	S.S.W.	−76	−35	−79 49		
			Direct.	−77 34·4	S.	−84	−35	−79 33		
			Direct.	−79 51·1	N.E. ½ E.	+63	−35	−79 23		
			Direct.	−79 57·6	N.E.	+69	−35	−79 24		
			Direct.	−79 32·1	N.E. by E. ½ E.	+52	−35	−79 15		
			Direct.	−78 18·6	S.E. by E. ½ E.	−27	−35	−79 21	−79 28	Sailing amongst loose ice, very steady.
			Direct.	−78 14·3	S.E. by E.	−36	−35	−79 25		
			Direct.	−78 23·0	E.S.E.	−17	−35	−79 15		
			Direct.	−80 26·0	N.	+86	−35	−79 35		
			Direct.	−80 03·9	N.E. by N.	+75	−35	−79 24		
			Direct.	−80 11·6	N.N.E.	+81	−35	−79 26		
			Direct.	−80 19·4	N. by E.	+85	−35	−79 29		
24.	−65 50	204 08	Direct.	−80 31·9	N. by W.	+85	−35	−79 42		
			Direct.	−80 28·8	N. by W.	+85	−35	−79 39		
			Def. N.	−79 26·9	N. by W.	+85	−81	−79 23		
			Mag. S.	−80 21·4	N. by W.	+85	−35	−79 31		
			Mag. N.	−80 08·5	N. by W.	+85	−35	−79 19		
			Mag. N.S.	−80 00·0	N. by W.	+85	−35	−79 10	−79 30	Ship fast to a piece of ice.
			Direct.	−80 01·8	N.E.	+69	−35	−79 28		
			Mag. S.	−79 50·6	N.E.	+69	−35	−79 17		
			Direct.	−80 29·6	N.N.W.	+81	−35	−79 44		
			Direct.	−80 29·2	N.W.	+69	−35	−79 55		
			Direct.	−79 01·3	E.	+16	−35	−79 19		
25.	−66 01	204 00	Direct.	−79 09·2	E. by N.	+32	−35	−79 12		
			Direct.	−78 56·5	E. ¾ S.	+ 4	−35	−79 28		
			Direct.	−80 31·4	N.W. ¼ N.	+70	−35	−79 56		
			Direct.	−78 39·0	E. by S. ¾ S.	−12	−35	−79 26		
26.	−65 57	204 27	Direct.	−80 39·4	N. by W.	+85	−35	−79 49	−79 39	Sailing amongst ice, very steady.
			Direct.	−80 31·5	N.W. ¾ W.	+61	−35	−80 06		
			Direct.	−78 21·3	S.E.	−51	−35	−79 47		
			Direct.	−78 39·0	E.S.E.	−18	−35	−79 32		
27.	−66 08	203 50	Direct.	−78 44·5	E.S.E.	−18	−35	−79 37		
			Direct.	−79 00·2	E. by S.	− 1	−35	−79 36		
			Def. N.	−77 37·7	E.S.E.	−18	−81	−79 17		
			Def. S.	−78 30·0	E.S.E.	−18	−35	−79 23		
			Direct.	−80 38·3	N.W. by N.	+75	−35	−79 58	−79 39	Sailing amongst ice, very steady.

* The result is omitted in the mean, as it differs so widely from all others of the same period.

Observations of Inclination. (Continued.)

1841.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Dec. 27.	−66° 08′	203° 50′	Mag. N.	−80° 16′·1	N.W. by N.	+7′5	−3′5	−79° 36′	−79° 39′	Sailing amongst ice, very steady.
			Mag. N.S.	−79 58·1	N.W. by N.	+7·5	−3·5	−79 18		
			Mag. S.	−80 34·0	N.W. by N.	+7·5	−3·5	−79 54		
			Direct.	−78 03·0	S. by E.	−8·3	−3·5	−80 01		
			Direct.	−78 21·3	S.E.	−5·2	−3·5	−79 48		
28.	−66 10	202 54	Direct.	−80 00·0	W. by N.	+3·2	−3·5	−80 03		
			Def. N.	−78 52·8	W. by N.	+3·2	−8·1	−79 42		
	−66 11	202 54	Direct.	−80 50·2	N. ½ W.	+8·5	−3·5	−80 00		
			Direct.	−78 29·2	S.W. by S.	−6·5	−3·5	−80 09		
29.	−66 20	203 20	Direct.	−79 22·8	E.	+1·6	−3·5	−79 42		
			Direct.	−80 44·3	N.W. ½ W.	+6·4	−3·5	−80 15		
			Direct.	−80 47·6	N.W.	+6·9	−3·5	−80 14	−80 01	Sailing amongst ice, very steady.
			Direct.	−79 26·8	E. ½ N.	+2·4	−3·5	−79 38		
30.	−66 25	203 12	Direct.	−79 24·7	E. by S.	0	−3·5	−80 00		
			Direct.	−81 13·2	N. W. by N.	+7·5	−3·5	−80 33		
			Direct.	−79 45·3	E.	+1·6	−3·5	−80 04		
			Direct.	−79 59·8	E. by N.	+3·2	−3·5	−80 03		
			Direct.	−80 09·2	E.N.E.	+4·6	−3·5	−79 58		
			Direct.	−80 14·0	N.E. by E. ½ E.	+5·2	−3·5	−79 57		
31.	−66 30	203 08	Direct.	−81 15·6	N. by W.	+8·5	−3·5	−80 26		Fast to a piece of ice: Erebus fast to the same piece distant fifty yards. Terror's head to North*.
			Direct.	−81 17·6	N. ½ W.	+8·5	−3·5	−80 28		Erebus bearing E.
			Direct.	−81 15·5	N.	+8·6	−3·5	−80 25		
			Direct.	−81 10·2	N. ½ E	+8·5	−3·5	−80 20		
			Direct.	−81 11·8	N. by E.	+8·5	−3·5	−80 22		
			Direct.	−80 28·6	W. ½ N.	+2·4	−3·5	−80 40		Ditto; Erebus N.
1842.										
Jan. 1.	−66 36	203 29	Direct.	−81 14·8	N.W. ½ W.	+6·4	−3·5	−80 46		
			Def. N.	−80 22·2	N.W. ½ W.	+6·4	−8·1	−80 39		
			Def. S.	−81 06·3	N.W. ½ W.	+6·4	−3·5	−80 37		
			Mag. N.	−81 03·7	N.W. ½ W.	+6·4	−3·5	−80 34		Ditto; Erebus N.E.
			Mag. N.S.	−80 50·7	N.W. ½ W.	+6·4	−3·5	−80 22		
			Mag. S.	−81 01·3	N.W. ½ W.	+6·4	−3·5	−80 32		
			Direct.	−81 15·4	N.W. ½ W.	+6·4	−3·5	−80 46		
2.	−66 36	203 14	Direct.	−81 12·4	N. ½ W.	+8·5	−3·5	−80 22		Ditto; Erebus E.
3.	−66 32	203 23	Direct.	−78 46·1	S.E.	−5·2	−3·5	−80 13		
			Direct.	−78 26·1	S. by W.	−8·3	−3·5	−80 24		
			Direct.	−78 29·6	S. by W. ½ W.	−8·0	−3·5	−80 25	−80 03	Running amongst loose ice, very steady.
5.	−66 14	203 17	Direct.	−79 36·7	E. ½ S.	+0·8	−3·5	−80 04		
6.	−66 09	203 58	Direct.	−77 46·2	S. ¾ W.	−8·3	−3·5	−79 44		
			Direct.	−80 15·8	N. ¾ E.	+8·5	−3·5	−79 26		
7.	−66 20	203 39	Direct.	−80 31·9	N.W.	+6·9	−3·5	−79 58		
			Def. N.	−79 32·1	N.W.	+6·9	−8·1	−79 44		
			Def. S.	−80 26·2	N.W.	+6·9	−3·5	−79 52		
			Mag. N.	−80 15·7	N.W.	+6·9	−3·5	−79 42		
			Mag. N.S.	−80 05·8	N.W.	+6·9	−3·5	−79 32	−79 52	Running amongst loose ice, very steady.
			Mag. S.	−80 34·5	N.W.	+6·9	−3·5	−80 01		
			Direct.	−80 37·9	N.W.	+6·9	−3·5	−80 04		
			Direct.	−79 53·0	S.	−8·5	−3·5	−79 53		
			Direct.	−78 00·9	S. by E.	−8·3	−3·5	−79 59		
8.	−66 05	204 02	Direct.	−78 15·2	S. by W. ½ W.	−8·0	−3·5	−80 10		
			Direct.	−80 44·1	N.	+8·6	−3·5	−79 53		
			Def. N.	−79 45·4	N.	+8·6	−8·1	−79 40		
			Def. S.	−80 41·6	N.	+8·6	−3·5	−79 51		Running amongst loose ice, very steady.
			Mag. N.	−80 27·8	N.	+8·6	−3·5	−79 37	−79 51	

* These observations are omitted in the general table of results, and in the map: the proximity of the two ships appears however to have produced scarcely any sensible effect on the inclination needle.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Jan. 8.	−66° 05′	204° 02′	Mag. N.S.	−80° 20′·7	N.	+8′6	−3′5	−79° 30′	−79° 51′	Running amongst loose ice, very steady.
			Mag. S.	−80 46·2	N.	+86	−35	−79 55		
			Direct.	−80 45·4	N.	+86	−35	−79 54		
			Direct.	−78 00·6	S. by E.	−83	−35	−79 59		
			Direct.	−78 25·8	S.W. by S.	−65	−35	−80 06		
			Direct.	−80 40·4	N. by W.	+85	−35	−79 50		
			Direct.	−80 43·1	N.	+86	−35	−79 52		
			Direct.	−79 10·0	E. ½ S.	+ 8	−35	−79 37		
			Direct.	−77 56·0	S.	−85	−35	−79 56		
9.	−66 01	204 04	Direct.	−78 58·2	E. by S.	− 1	−35	−79 34		
			Direct.	−79 22·2	E. ¼ N.	+20	−35	−79 37		
			Direct.	−78 46·0	S.W. by W.	−36	−35	−79 57		
			Direct.	−78 33 8	S.W. ½ W.	−44	−35	−79 53		
			Def. N.	−77 34·8	S.W. ½ W.	−44	−81	−79 40		
			Direct.	−78 36·3	S.W.	−52	−35	−80 03	−79 50	
			Direct.	−79 00·8	W.S.W.	−18	−35	−79 54		
			Def. S.	−79 10·9	W.S.W.	−18	−35	−80 04		
			Mag. N.	−78 28·8	S.W. by W.	−36	−35	−79 40		
			Mag. N.S.	−78 24·4	S.W. by W.	−36	−35	−79 35		
			Mag. S.	−78 48·6	S.W. by W.	−36	−35	−80 00		
			Direct.	−78 45·2	S.W. by W.	−36	−35	−79 56		
10.	−65 57	203 56	Direct.	−79 03·7	W.S.W.	−18	−35	−79 57		Running amongst loose ice, very steady.
			Direct.	−79 30·4	W. by S.	− 1	−35	−80 06		
			Def. N.	−78 23·7	W. by S.	− 1	−81	−79 46		
			Def. S.	−79 14·9	W. by S.	− 1	−35	−79 51		
			Mag. N.	−79 17·4	W. by S.	− 1	−35	−79 53		
			Direct.	−79 15·1	E.	+16	−35	−79 34		
			Mag. S.	−79 17·6	E.	+16	−35	−79 37	−79 47	
			Mag. N.S.	−78 55·2	E.	+16	−35	−79 14		
			Direct.	−79 15·7	E.	+16	−35	−79 35		
			Direct.	−78 29·0	S.E. by E. ½ E.	−27	−35	−79 31		
			Direct.	−79 41·5	W. ¼ S.	+12	−35	−80 05		
			Direct.	−79 23·8	W. by S. ½ S.	− 8	−35	−80 07		
	−65 58	203 37	Direct.	−78 44·5	S.W. by W.	−36	−35	−79 55		
			Direct.	−78 46·3	S.W. by W.	−36	−35	−79 57		
11.	−65 56	203 31	Direct.	−77 58·3	S. by E.	−83	−35	−79 56		
			Direct.	−77 53·2	S.	−85	−35	−79 53		
			Def. N.	−76 51·8	S.	−85	−81	−79 58		
			Def. S.	−77 56·7	S.	−85	−35	−79 57		
			Mag. N.	−77 31·0	S.	−85	−35	−79 31	−79 51	
			Mag. N.S.	−77 35·4	S.	−85	−35	−79 35		
			Mag. S.	−77 49·3	S.	−85	−35	−79 49		
12.	−65 45	203 23	Direct.	−78 30·4	S.W.	−52	−35	−79 57		
			Direct.	−78 20·6	S.W. by S.	−65	−35	−80 01		
			Direct.	−78 44·4	S.W. by W.	−36	−35	−79 55		
13.	−66 06	202 10	Direct.	−78 13·7	S. by W.	−82	−35	−80 11		
			Direct.	−77 50·3	S.	−84	−35	−79 49		Very steady, working about in a hole of water.
	−66 12	202 12	Direct.	−80 22·0	N.N.E.	+81	−35	−79 36		
			Direct.	−80 46·2	N.	+86	−35	−79 55		
			Direct.	−80 38·4	N. ½ E.	+85	−35	−79 48		
			Def. N.	−79 44·5	N. ½ E.	+85	−81	−79 41		
			Def. S.	−80 39·1	N. ½ E.	+85	−35	−79 49	−79 48	
			Mag. N.	−80 22·8	N. ½ E.	+85	−35	−79 33		
			Mag. N.S.	−80 20·0	N. ½ E.	+85	−35	−79 30		
			Mag. S.	−80 37·4	N. ½ E.	+85	−35	−79 47		
			Direct.	−80 39·8	N. ½ E.	+85	−35	−79 50		
			Direct.	−78 07·0	S.S.E.	−77	−35	−79 59		
			Direct.	−77 58·2	S.	−85	−35	−79 58		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
				° ′		′	′	° ′	° ′	
Jan. 14.	−66 08	201 46	Direct.	−77 58·8	S.	−85	−35	−79 59		
			Direct.	−78 09·0	S. by E.	−83	−35	−80 07		
			Direct.	−80 23·5	N.N.E.	+81	−35	−79 38		
			Direct.	−80 20·4	N.E.	+69	−35	−79 46		
			Direct.	−79 51·7	N.E. by E.	+59	−35	−79 28		
			Def. N.	−79 01·7	N.E. by E.	+59	−81	−79 24	−79 35	
			Def. S.	−80 00·4	N.E. by E.	+59	−35	−79 36		
			Mag. N.	−79 39·7	N.E. by E.	+59	−35	−79 16		
			Mag. N.S.	−79 28·8	N.E. by E.	+59	−35	−79 05		
			Mag. S.	−80 17·5	N.N.E.	+81	−35	−79 32		
			Direct.	−80 22·0	N.N.E.	+81	−35	−79 36		Very steady, working about in a hole of water.
15.	−65 59	202 22	Direct.	−78 45·5	E.S.E.	−18	−35	−79 39		
	−65 58	202 21	Direct.	−79 19·4	E.	+16	−35	−79 38		
			Direct.	−78 31·4	S.W. by S.	−65	−35	−80 11		
			Direct.	−78 45·9	E.S.E.	−18	−35	−79 39		
16.	−65 47	202 08	Direct.	−79 23·8	E.	+16	−35	−79 43		
			Def. N.	−78 32·3	E.	+16	−81	−79 37		
			Def. S.	−79 13·2	E.	+16	−35	−79 32	−79 38	
			Mag. N.	−79 06·4	E.	+16	−35	−79 25		
			Mag. N.S.	−79 00·0	E.	+16	−35	−79 19		
			Mag. S.	−79 19·3	E.	+16	−35	−79 38		
			Direct.	−79 23·4	E.	+16	−35	−79 42		
			Direct.	−79 25·3	E.	+16	−35	−79 44		
17.	−65 47	201 56	Direct.	−80 05·9	N.E.	+69	−35	−79 32		Fast to a piece of ice.
19.	−66 11	200 45	Direct.	−80 55·9	N.	+86	−35	−80 05		
			Direct.	−80 50·3	N. by E. $\frac{3}{4}$ E.	+82	−35	−80 03		Ship steady.
			Direct.	−78 47·2	S.S.W. $\frac{1}{2}$ W.	−71	−35	−80 33		
20.	−67 37	200 12	Direct.	−79 51·6	W. by S.	− 1	−35	−80 28		
			Direct.	−80 25·6	W. by N.	+32	−35	−80 29		
			Direct.	−80 03·1	W.	+16	−35	−80 22	−80 22	Long swell, ship striking heavily against pieces of ice.
			Direct.	−80 47·6	N. by E.	+85	−35	−79 58		
			Direct.	−80 59·8	N. by E. $\frac{1}{2}$ E.	+83	−35	−80 12		
			Direct.	−78 26·8	S. by W.	−83	−35	−80 25		
21.	−66 43	202 50	Direct.	−78 44·7	S.S.W.	−77	−35	−80 37		
			Direct.	−78 38·3	S. by W.	−83	−35	−80 36		Swell from W.N.W.
			Direct.	−78 35·4	S.	−85	−35	−80 35		
26.	−67 12	203 12	Direct.	−80 12·8	E. by N.	+32	−35	−80 16		
			Def. N.	−79 15·3	E. by N.	+32	−81	−80 04		
			Def. S.	−80 14·2	E. by N.	+32	−35	−80 17		
			Mag. N.	−80 07·4	E. by N.	+32	−35	−80 10		
			Mag. N.S.	−79 55·1	E. by N.	+32	−35	−79 58	−80 06*	Both ships made fast to a piece of ice; Erebus N. by W., distant 20 fathoms.
			Direct.	−80 03·0	E.	+16	−35	−80 22		
			Direct.	−78 54·4	S.E. by E.	−36	−35	−80 05		
			Mag. N.S.	−78 23·2	S.E. by E.	−36	−35	−79 34		
			Mag. S.	−78 46·7	S.E. by E.	−36	−35	−79 58		
			Direct.	−79 28·2	E.S.E.	−18	−35	−80 21		
28.	−67 46	204 17	Direct.	−80 38·8	E. by N.	+32	−35	−80 42		
			Def. N.	−79 40·5	E. by N.	+32	−81	−80 30		
			Def. S.	−81 31·3	N.	+86	−35	−80 40		
			Direct.	−80 46·1	E.N.E.	+46	−35	−80 35		
			Direct.	−81 45·8	N. by E.	+85	−35	−80 56		
			Def. N.	−81 02·7	N. by E.	+85	−81	−81 07		
			Direct.	−81 31·0	N.N.E.	+81	−35	−80 45		
			Def. N.	−80 43·8	N.N.E.	+81	−81	−80 44		Swell from W.S.W.
			Mag. N.	−81 24·4	N.N.E.	+81	−35	−80 38	−80 43	Table steady.

* Omitted in the Map, in consequence of the vicinity of the other ship.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Jan. 28.	−67° 46′	204° 17′	Mag. N.S.	−81° 16′·6	N.N.E.	+81′	−35′	−80° 31′	−80° 43′	Table steady.
			Mag. S.	−81 25·2	N.N.E.	+81	−35	−80 39		
			Direct.	−79 06·5	S. ¾ W.	−84	−35	−81 06		
			Def. N.	−78 00·0	S. ¾ W.	−84	−81	−80 45		
			Def. S.	−78 38·0	S. ¾ W.	−84	−35	−80 37		
			Mag. N.	−78 36·0	S. ¾ W.	−84	−35	−80 35		
			Mag. N.S.	−78 32·1	S. ¾ W.	−84	−35	−80 31		
			Mag. S.	−78 45·8	S. ¾ W.	−84	−35	−80 45		
			Direct.	−79 04·5	S. ¾ W.	−84	−35	−81 04		
			Direct.	−81 39·3	N.	+86	−35	−80 48		
			Direct.	−81 42·2	N. by W. ¾ W.	+83	−35	−80 54		
			Direct.	−81 47·6	N. by W. ½ W.	+84	−35	−81 00		
			Direct.	−78 47·4	S. ½ E.	−84	−35	−80 46		
			Direct.	−78 50·6	S. ½ E.	−84	−35	−80 50	−80 48	
	−67 48	204 18	Direct.	−79 45·4	S.W. by W.	−36	−35	−80 56		
			Direct.	−80 40·8	W.	+16	−35	−81 00		
			Direct.	−81 31·5	N.W. by W.	+59	−35	−81 08		
			Direct.	−80 15·3	E.	+16	−35	−80 34		
			Direct.	−80 01·3	E. by S.	− 1	−35	−80 37		Very steady.
			Direct.	−79 46·6	E.S.E.	−18	−35	−80 40		
			Direct.	−80 31·9	E. by N.	+32	−35	−80 35		
29.	−67 24	204 05	Direct.	−80 38·5	E.N.E.	+46	−35	−80 28		
			Direct.	−79 10·2	S. by W.	−83	−35	−81 08		
			Def. N.	−78 06·9	S. by W.	−83	−81	−80 51		
			Def. S.	−78 44·1	E.N.E.	+46	−35	*		
			Mag. N.	−78 38·6	E.N.E.	+46	−35			
			Mag. N.S.	−78 33·9	E.N.E.	+46	−35			
31.	−67 12	202 24	Direct.	−78 59·8	S.S.W.	−77	−35	−80 52		
			Def. N.	−78 07·9	S.S.W.	−77	−81	−80 46	−80 44	Strong breeze, steady.
			Def. S.	−78 55·8	S.S.W.	−77	−35	−80 48		
			Mag. N.	−78 36·9	S.S.W.	−77	−35	−80 29		
			Mag. N.S.	−78 29·0	S.S.W.	−77	−35	−80 21		
			Mag. S.	−79 07·7	S.S.W.	−77	−35	−81 00		
			Direct.	−79 23·3	S.W.	−52	−35	−80 50		
			Def. N.	−78 09·4	S.W.	−52	−81	−80 22		
			Direct.	−79 15·3	S.W. by S.	−65	−35	−80 55		
			Def. N.	−78 23·5	S.W. by S.	−65	−81	−80 50		
Feb. 1.	−67 12	201 34	Direct.	−80 15·5	W. by S.	− 1	−35	−80 52		
			Def. N.	−79 14·5	W. by S.	− 1	−81	−80 37		
			Direct.	−80 06·5	E.	+17	−35	−80 25		
			Def. N.	−79 05·2	E.	+17	−81	−80 09		Ship steady, ice all around.
			Direct.	−79 29·1	E.S.E.	−18	−35	−80 22		
			Direct.	−80 25·9	W.	+17	−35	−80 44		
			Direct.	−79 51·9	W.S.W.	−18	−35	−80 45		
	−67 16		Direct.	−78 58·6	S.S.W.	−77	−35	−80 51		
			Def. N.	−77 59·0	S.S.W.	−77	−81	−80 31	−80 35	Table steady.
			Def. S.	−78 53·6	S.S.W.	−77	−35	−80 46		
			Mag. N.	−78 32·1	S.S.W.	−77	−35	−80 24		
			Mag. N.S.	−78 30·2	S.S.W.	−77	−35	−80 22		
			Mag. S.	−78 49·0	S.S.W.	−77	−35	−80 41		
			Direct.	−79 00·8	S.S.W.	−77	−35	−80 53		
			Direct.	−81 30·0	N. ¾ W.	+86	−35	−80 39		
			Def. N.	−80 37·0	N. ¾ W.	+86	−81	−80 32		
			Direct.	−79 08·1	S.W.	−52	−35	−80 35		
			Def. N.	−78 11·1	S.W.	−52	−81	−80 24		

* Omitted in the mean; apparently the degree should have been written 80 instead of 78.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
						′	′	° ′	° ′	
Feb. 2.	−67° 56′	199° 48′	Direct.	−79° 28′·6	s. by w.	−83	−35	−81 27		
			Def. N.	−78 37·8	s. by w.	−83	−81	−81 22		
			Def. S.	−79 15·1	s. by w.	−83	−35	−81 13		
			Mag. N.	−78 53·6	s. by w.	−83	−35	−80 52		
			Mag. N.S.	−79 07·5	s. by w.	−83	−35	−81 06		
			Mag. S.	−79 26·9	s. by w.	−83	−35	−81 25		
			Direct.	−79 27·4	s. by w.	−83	−35	−81 25	−81 18	Table steady.
3.	−68 21	200 06	Direct.	−79 34·2	s.s.w.	−77	−35	−81 26		
			Def. N.	−78 31·9	s.s.w.	−77	−81	−81 10		
			Def. S.	−79 26·7	s.s.w.	−77	−35	−81 19		
			Mag. N.	−79 24·2	s.s.w.	−77	−35	−81 16		
			Mag. N.S.	−79 23·4	s.s w.	−77	−35	−81 15		
			Mag. S.	−79 28·6	s.s.w.	−77	−35	−81 21		
			Direct.	−79 36·1	s.s.w.	−77	−35	−81 28		
4.	−68 45	199 41	Direct.	−79 32·5	s.	−85	−35	−81 33		
			Def. N.	−78 50·3	s.	−85	−81	−81 36		
			Def. S.	−79 36·6	s.	−85	−35	−81 37		
			Mag. N.	−79 17·2	s.	−85	−35	−81 17		
			Mag. N.S.	−79 12·4	s.	−85	−35	−81 12		
			Mag. S.	−79 43·4	s.	−85	−35	−81 43	−81 33	
			Direct.	−79 32·1	s. by E.	−83	−35	−81 30		
			Def. N.	−78 50·4	s. by E.	−83	−81	−81 34		
			Def. S.	−79 25·8	s. by E.	−83	−35	−81 24		
	−68 49	199 26	Direct.	−82 31·4	N.N.W.	+82	−35	−81 44		Fresh breeze, steady.
			Def. N.	−81 48·7	N.N.W.	+82	−81	−81 48		
5.	−68 52	198 24	Direct.	−81 51·5	s.w.	−52	−35	−83 19		
			Def. N.	−79 59·5	s.w.	−52	−81	−82 13		
			Def. S.	−80 58·7	s.w.	−52	−35	−82 26		
			Mag. N.	−80 48·0	s.w.	−52	−35	−82 15	−82 30	
			Mag. N.S.	−80 36·8	s.w.	−52	−35	−82 04		
			Mag. S.	−81 04·1	s.w.	−52	−35	−82 31		
			Direct.	−81 21·6	s.w. ½ w.	−44	−35	−82 41		
			Direct.	−81 20·0	s.w. by w.	−36	−35	−82 31		
6.	−69 55	192 17	Direct.	−81 09·2	s. by w.	−84	−35	−83 08		
			Def. N.	−80 15·1	s. by w.	−84	−81	−83 00		
			Def. S.	−81 04·2	s. by w.	−84	−35	−83 03		
			Mag. N.	−80 52·3	s. by w.	−84	−35	−82 51		
			Mag. N.S.	−80 39·1	s. by w.	−84	−35	−82 38	−83 00	Steering well, but table not steady.
			Mag. S.	−81 09·2	s. by w.	−84	−35	−83 08		
			Direct.	−81 12·8	s. by w.	−84	−35	−83 12		
			Direct.	−80 56·9	s.	−86	−35	−82 58		
			Def. N	−80 00·2	s.	−86	−81	−82 47		
			Direct.	−81 12·6	s. by w.	−84	−35	−83 12		
7.	−70 05	191 03	Direct.	−81 35·1	s.s.w.	−78	−35	−83 28		
			Def. N.	−80 38·2	s.s.w.	−78	−81	−83 17		
			Direct.	−81 56·4	s.w.	−52	−35	−83 23		
			Direct.	−81 35·3	s. by w. ¾ w.	−80	−35	−83 30		
			Def. S.	−81 20·0	s.s.w.	−78	−35	−83 13	−83 20	Strong breeze, ship steering wildly.
			Mag. N.	−81 24·7	s.s.w.	−78	−35	−83 18		
			Mag. N.S.	−81 15·6	s.s.w.	−78	−35	−83 09		
			Mag. S.	−81 23·9	s.s.w.	−78	−35	−83 17		
			Direct.	−81 29 6	s. by w. ½ w.	−81	−35	−83 26		
8.	−70 08	186 39	Direct.	−81 56·9	s.w.	−52	−35	−83 24		
			Def. N.	−81 16·7	s.w.	−52	−81	−83 30		
			Direct.	−82 12·3	s.w. by w.	−36	−35	−83 23		
			Def. N.	−81 34·1	s.w. by w.	−36	−83	−83 31	−83 23	Table steady.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Feb. 8.	−70° 08′	186° 39′	Def. S.	−82° 09′·9	s.w. by w.	−36′	−35′	−83° 21′	−83° 23′	Table steady.
			Mag. N.	−82 10·1	s.w. by w.	−36	−35	−83 21		
			Mag. N.S.	−82 03·7	s.w. by w.	−36	−35	−83 15		
			Mag. S.	−82 10·3	s.w. by w.	−36	−35	−83 21		
			Direct.	−82 15·9	s.w. by w.	−36	−35	−83 27		
			Direct.	−81 19·7	s.	−87	−35	−83 22		
	−70 17	186 04	Direct.	−81 16·1	s.	−87	−35	−83 18		
			Def. N.	−80 37·6	s.	−87	−81	−83 26		
			Def. S.	−81 38·5	s.	−87	−35	−83 41		
			Mag. N.	−81 11·6	s.	−87	−35	−83 14		
			Mag. N.S.	−81 04·5	s.	−87	−35	−83 07		
			Mag. S.	−81 33·4	s.	−87	−35	−83 35		
			Direct.	−81 20·6	s.	−87	−35	−83 23		
9.	−70 32	185 38	Direct.	−83 51·8	w. by n.	+32	−35	−83 55		
			Def. N.	−83 09·4	w. by n.	+32	−81	−83 58		
			Def. S.	−83 55·8	w. by n.	+32	−35	−83 59		
			Mag. N.S.	−83 36·2	w. by n.	+32	−35	−83 39		
			Direct.	−82 08·5	w. by n.	+32	−35	−82 12	−83 30	Head swell, unsteady.
			Def. N.	−81 14·8	w. by n.	+32	−81	−82 04		
			Direct.	−82 02·7	s.e. ½ s.	−59	−35	−83 37		
			Def. S.	−82 01·0	s.e. ½ s.	−59	−35	−83 35		
			Mag. N.S.	−82 03·5	s.e. ½ s.	−59	−35	−83 38		
			Direct.	−82 12 6	s.e. by s.	−66	−35	−83 54		
10.	−69 56	184 43	Direct.	−83 33·0	w. by s.	− 1	−35	−84 09		
			Def. N.	−82 37·3	w. by s.	− 1	−81	−83 59		
			Def. S.	−83 31·5	w. by s.	− 1	−35	−84 07		
			Mag. N.	−83 25·9	w. by s.	− 1	−35	−84 02	−84 03	Heavy swell, unsteady.
			Mag. N.S.	−83 11·0	w. by s.	− 1	−35	−83 47		
			Mag. S.	−83 33·1	w. by s.	− 1	−35	−84 09		
			Direct.	−83 34·2	w. by s.	− 1	−35	−84 10		
			Direct.	−83 46·2	w.	+17	−35	−84 04		
11.	−69 51	183 02	Direct.	−83 21·8	w.s.w.	−18	−35	−84 15		
			Def. N.	−82 21·1	w.s.w.	−18	−81	−84 00		
			Def. S.	−83 04·0	w.s.w.	−18	−35	−83 57		
			Mag. N.	−83 25·7	w.s.w.	−18	−35	−84 19	−84 09	Strong wind, westerly swell, ship unsteady.
			Mag. N.S.	−82 58·0	w.s.w.	−18	−35	−83 51		
			Mag. S.	−83 20·5	w.s.w.	−18	−35	−84 14		
	−70 03	181 44	Direct.	−82 45·0	s.w. by s.	−66	−35	−84 26		
12.	−71 03	180 56	Direct.	−82 46·6	s.e. by s.	−66	−35	−84 28		
			Def. N.	−81 48·5	s.e. by s.	−66	−81	−84 16		
			Def. S.	−82 39·3	s.e. by s.	−66	−35	−84 20		Cross sea, table very unsteady.
			Mag. N.	−82 24·9	s.e. by s.	−66	−35	−84 06		
			Mag. N.S.	−82 21·1	s.e. by s.	−66	−35	−84 02	−84 20	
			Mag. S.	−82 34·9	s.e. by s.	−66	−35	−84 16		
			Direct.	−82 45·2	s.e. by s.	−66	−35	−84 26		Table very unsteady, a cross sea.
	−71 02	180 58	Direct.	−83 08·2	s.e. by s.	−66	−35	−84 49		
13.	−72 07	181 50	Direct.	−83 16·8	s.e. by s.	−66	−35	−84 58		
			Def. N.	−82 21·1	s.e. by s.	−66	−81	−84 48		
			Def. S.	−83 18·6	s.e. by s.	−66	−35	−85 00		
			Mag. N.	−83 06·9	s.e. by s.	−66	−35	−84 48		
			Mag. N.S.	−82 55·3	s.e. by s.	−66	−35	−84 36	−84 59	A swell from N.W., ship unsteady, steering badly.
			Mag. S.	−83 17·7	s.e. by s.	−66	−35	−84 59		
			Direct.	−83 20·2	s.e. by s.	−66	−35	−85 01		
			Direct.	−83 37·9	s.e. by s.	−66	−35	−85 19		
			Direct.	−83 40·5	s.e. by s.	−66	−35	−85 22		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Feb. 14.	−72 55	181 33	Direct.	−83 58·2	S.E. by E.	−36	−35	−85 09		
			Def. N.	−83 21·7	S.E. by E.	−36	−81	−85 19		
			Def. S.	−84 07·0	S.E. by E.	−36	−35	−85 18		
			Mag. N.	−84 01·7	S.E. by E.	−36	−35	−85 13		A swell from the W.N.W., unsteady.
			Mag. N.S.	−83 29·5	S.E. by E.	−36	−35	−84 40	−85 22	
			Mag. S.	−83 58·4	S.E. by E.	−36	−35	−85 09		
			Direct.	−84 00·6	S.E. by E.	−36	−35	−85 12		
	−73 23	181 11	Direct.	−84 16·8	S.E.	−52	−35	−85 44		Strong breeze, unsteady.
15.	−74 20	177 55	Direct.	−84 51·4	S.E. by S.	−66	−35	−86 32		Heavy sea, very unsteady.
16.	−74 51	174 02	Direct.	−85 13·4	S.S.E.	−79	−35	−87 07		
			Def. N.	−84 17·5	S.S.E.	−79	−81	−86 58		
			Def. S.	−85 10·6	S.S.E.	−79	−35	−87 05		
			Mag. N.	−85 08·8	S.S.E.	−79	−35	−87 03		
			Mag. N.S.	−84 53·3	S.S.E.	−79	−35	−86 47		Table steady.
			Mag. S.	−85 12·0	S.S.E.	−79	−35	−87 06		
			Direct.	−85 15·6	S.S.E.	−79	−35	−87 10	−87 05	
	−75 05	173 10	Direct.	−85 49·1	S.E.	−52	−35	−87 16		
	−75 09	173 16	Direct.	−86 56·1	E. ½ S.	+ 7	−35	−87 24		
			Direct.	−86 33·0	E. by S.	− 2	−35	−87 10		
			Def. N.	−85 35·9	E. by S.	− 2	−81	−86 59		N.W. swell, slight motion.
			Def. S.	−86 39·6	E. by S.	− 2	−35	−87 17		
			Mag. N.S.	−86 13·2	E. by S.	− 2	−35	−86 50		
17.	−75 57	175 08	Direct.	−87 15·8	E.N.E.	+46	−35	−87 05		
	−76 06	174 57	Direct.	−87 12·6	E. by N. ½ N.	+39	−35	−87 09		
			Def. N.	−86 31·1	E. by N. ½ N.	+39	−81	−87 13		
			Def. S.	−87 05·2	E. by N. ½ N.	+39	−35	−87 01	−87 03	Very unsteady, steering badly.
			Mag. N.	−86 50·8	E. by N. ½ N.	+39	−35	−86 47		
			Mag. N.S.	−86 39·4	E. by N. ½ N.	+39	−35	−86 35		
			Mag. S.	−87 33·9	E. by N. ½ N.	+39	−35	−87 30		
			Direct.	−87 08·0	E. by N. ½ N.	+39	−35	−87 04		
18.	−77 02	181 37	Direct.	−87 06·3	E.N.E.	+46	−35	−86 55		
			Def. N.	−86 16·8	E.N.E.	+46	−81	−86 52		
			Def. S.	−87 21·3	E.N.E.	+46	−35	−87 10		
			Mag. N.	−87 14·9	E.N.E.	+46	−35	−87 04		
			Mag. N.S.	−86 45·6	E.N.E.	+46	−35	−86 35	−86 56	
			Mag. S.	−87 15·2	E.N.E.	+46	−35	−87 04		
			Direct.	−87 37·4	N.E. ½ E.	+64	−35	−87 08		
	−77 09	181 22	Direct.	−86 56·5	N.E. by E. ½ E.	+52	−35	−86 39		
19.	−76 48	184 46	Direct.	−87 27·6	N. by E.	+88	−35	−86 35		
			Def. N.	−86 54·2	N. by E.	+88	−81	−86 47		
			Def. S.	−87 45·2	N. by E.	+88	−35	−86 52		
			Mag. N.	−87 16·6	N. by E.	+88	−35	−86 24		
			Mag. N.S.	−87 15·1	N. by E.	+88	−35	−86 22	−86 30	Cross sea, table unsteady.
			Mag. S.	−86 53·6	N. by E.	+88	−35	−86 01		
			Direct.	−87 29·1	N. by E.	+88	−35	−86 36		
	−76 50	186 21	Direct.	−87 01·3	N.E. ½ N.	+72	−35	−86 24		
20.	−76 20	190 26	Direct.	−86 44·6	N.E.	+69	−35	−86 11		
			Def. N.	−86 04·7	N.E.	+69	−81	−86 17		
			Def. S.	−86 42·3	N.E.	+69	−35	−86 08		
			Mag. N.	−86 26·7	N.E.	+69	−35	−85 53		
			Mag. N.S.	−86 23·0	N.E.	+69	−35	−85 49	−85 59	
			Mag. S.	−86 48·5	N.E.	+69	−35	−86 15		
			Direct.	−86 39·1	N.E.	+69	−35	−86 05		
	−76 14	192 29	Direct.	−85 56·9	N.E. by E.	+59	−35	−85 33		Strong gale, heavy sea, a great deal of motion.
21.	−75 45	195 02	Direct.	−84 13·7	S.W.	−52	−35	−85 41		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
				° ′		′	′	° ′	° ′	
Feb. 22.	−76 24	184 54	Direct.	−83 41·5	S.E. by S.	−66	−35	−85 23		
			Def. N.	−82 56·0	S.E. by S.	−66	−81	−85 23		
			Def. S.	−83 37·0	S.E. by S.	−66	−35	−85 18		
			Mag. N.	−83 19·8	S.E. by S.	−66	−35	−85 01		A head sea, ship unsteady.
			Mag. N.S.	−82 59·8	S.E. by S.	−66	−35	−84 41		
			Mag. S.	−83 29·9	S.E. by S.	−66	−35	−85 11		
			Direct.	−83 45·2	S.E. by S.	−66	−35	−85 26		
	−76 46	193 48	Direct.	−84 19·4	E.S.E.	−18	−35	−85 12	−85 12	
	−77 13	193 52	Direct.	−84 37·4	E. by S.	− 1	−35	−85 13		
			Def. N.	−83 51·4	E. by S.	− 1	−81	−85 13		
			Def. S.	−84 50·8	E. by S.	− 1	−35	−85 27		
			Mag. N.	−84 31·6	E. by S.	− 1	−35	−85 08		Light swell, gentle motion.
			Mag. N.S.	−84 17·0	E. by S.	− 1	−35	−84 53		
			Mag. S.	−84 27·8	E. by S.	− 1	−35	−85 04		
			Direct.	−85 02·7	E.	+17	−35	−85 21		
23.	−77 48	197 23	Direct.	−84 14·6	S.W.by W.$\frac{1}{2}$W.	−27	−35	−85 17		
	−77 47	197 25	Direct.	−85 13·0	N.E. by E.	+59	−35	−84 49		
			Def. N.	−84 34·3	N.E. by E.	+59	−81	−84 56		
			Def. S.	−85 21·1	N.E. by E.	+59	−35	−84 57		
			Direct.	−85 05·7	E.N.E.	+46	−35	−84 55	−84 49	Table very steady.
			Mag. N.	−84 21·4	E.N.E.	+46	−35	−84 10		
			Mag. N.S.	−84 41·7	E.N.E.	+46	−35	−84 31		
			Mag. S.	−85 00·2	E.N.E.	+46	−35	−84 49		
			Direct.	−85 05·5	E.N.E.	+46	−35	−84 55		
24.	−77 14	199 29	Direct.	−84 00·0	S.W. by S.	−66	−35	−85 41		
			Def. N.	−83 17·5	S.W. by S.	−66	−81	−85 45		
			Def. S.	−83 57·7	S.W. by S.	−66	−35	−85 39		
			Mag. N.	−83 42·9	S.W. by S.	−66	−35	−85 24	−85 35	Swell from N.E., steady.
			Mag. N.S.	−83 32·3	S.W. by S.	−66	−35	−85 13		
			Mag. S.	−84 11·7	S.W. by S.	−66	−35	−85 53		
			Direct.	−85 13·3	W.	+17	−35	−85 31		
	−77 00	198 50	Direct.	−84 25·8	S.W. by W.	−36	−35	−85 37		
25.	−75 20	194 36	Direct.	−85 30·9	W.	+17	−35	−85 49		
			Def. N.	−84 33·1	W.	+17	−81	−85 37		
			Def. S.	−85 28·4	W.	+17	−35	−85 46		
			Mag. N.	−85 15·5	W.	+17	−35	−85 34		
			Mag. N.S.	−84 59·3	W.	+17	−35	−85 17	−85 46	Swell from the E.N.E., steady.
			Mag. S.	−85 22·7	W.	+17	−35	−85 41		
			Direct.	−85 38·6	W.	+17	−35	−85 57		
			Direct.	−84 34·6	S.W. by S.	−66	−35	−86 16		
			Direct.	−86 03·9	W.N.W.	+46	−35	−85 53		
26.	−73 10	189 21	Direct.	−85 37·4	N.W. by W.	+60	−35	−85 12		
			Def. N.	−84 44·0	N.W. by W.	+60	−81	−85 05		
			Def. S.	−85 36·9	N.W. by W.	+60	−35	−85 12		
			Mag. N.	−85 19·6	N.W. by W.	+60	−35	−84 55	−85 08	Strong breeze, motion great.
			Mag. N.S.	−85 37·8	N.W. by W.	+60	−35	−85 13		
			Mag. S.	−85 30·6	N.W. by W.	+60	−35	−85 06		
			Direct.	−85 35·6	N.W. by W.	+60	−35	−85 11		
27.	−72 03	187 40	Direct.	−83 30·8	S.W.	−52	−35	−84 58		
			Def. N.	−82 37·6	S W.	−52	−81	−84 51		
			Def. S.	−83 36·5	S.W.	−52	−35	−85 04		
			Mag. N.	−83 07·6	S.W.	−52	−35	−84 35		Swell from the eastward, motion slight.
			Direct.	−84 56·8	W. by N. $\frac{1}{2}$ N.	+39	−35	−84 53	−84 56	
			Mag. N.S.	−84 25·5	W. by N. $\frac{1}{2}$ N.	+39	−35	−84 22		
			Mag. S.	−83 43·4	S.W.	−52	−35	−85 10		
			Direct.	−83 52·3	W.S.W.	−18	−35	−84 45		
	−71 43	187 15	Direct.	−84 56·8	W.S.W.	−18	−35	−85 50		Table steady.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Feb. 28.	−71 20	184 30	Direct.	−84 01·9	w. by s.	− 1	−35	−84 38		
			Def. N.	−82 59·6	w. by s.	− 1	−81	−84 22		
			Def. S.	−83 56·9	w. by s.	− 1	−35	−84 33		
			Mag. N.	−83 37·9	w. by s.	− 1	−35	−84 14		
			Mag. N.S.	−83 23·9	w. by s.	− 1	−35	−84 00		
			Mag. S.	−84 00·7	w. by s.	− 1	−35	−84 37	−84 37	Table steady.
			Direct.	−83 35·3	s.w. by w.	− 36	−35	−84 46		
	−70 55	183 56	Direct.	−84 32·0	w. ½ s.	+ 8	−35	−84 59		
			Direct.	−84 36·8	w.	+ 17	−35	−84 55		
	−70 49	183 46	Direct.	−85 31·6	n.w. ½ w.	+ 64	−35	−85 03		
Mar. 1.	−69 54	179 55	Direct.	−85 00·0	w.n.w.	+ 54	−35	−84 41		
			Def. N.	−84 06·3	w.n.w.	+ 54	−81	−84 33		
			Def. S.	−84 54·4	w.n.w.	+ 54	−35	−84 35		
			Mag. N.	−84 44·4	w.n.w.	+ 54	−35	−84 25		
			Mag. N.S.	−84 35·4	w.n.w.	+ 54	−35	−84 16	−84 30	Swell from the eastward, table steady.
			Mag. S.	−84 44·7	w.n.w.	+ 54	−35	−84 26		
			Direct.	−84 54·2	w.n.w.	+ 54	−35	−84 35		
			Direct.	−84 28·0	w. by n.	+ 37	−35	−84 26		
2.	−68 09	183 10	Direct.	−83 45·8	n.n.e.	+ 99	−35	−82 42		
			Def. N.	−82 29·8	n.n.e.	+ 99	−81	−82 12		
			Def. S.	−83 33·2	n.n.e.	+ 99	−35	−82 29		
			Mag. N.	−83 31·2	n.n.e.	+ 99	−35	−82 27	−82 26	Table steady.
			Mag. N.S.	−83 17·5	n.n.e.	+ 99	−35	−82 14		
			Mag. S.	−83 26·9	n.n.e.	+ 99	−35	−82 23		
			Direct.	−83 40·9	n.n.e.	+ 99	−35	−82 37		
3.	−67 35	185 18	Direct.	−82 27·4	n.e. by e.	+ 71	−35	−81 51		
			Direct.	−82 53·4	n.e.	+ 83	−35	−82 05		
			Direct.	−82 21·8	n.e. by e.	+ 71	−35	−81 46		
			Def. N.	−81 31·3	n.e. by e.	+ 71	−81	−81 41		
			Def. S.	−82 16·9	n.e. by e.	+ 71	−35	−81 41		
			Mag. N.	−82 04·0	n.e. by e.	+ 71	−35	−81 28		Cross sea, unsteady.
			Mag. N.S.	−81 58·7	n.e. by e.	+ 71	−35	−81 23		
			Mag. S.	−82 02·7	n.e. by e.	+ 71	−35	−81 27	−81 33	
			Direct.	−82 28·2	n.e. ½ e.	+ 76	−35	−81 52		
	−67 27	185 32	Direct.	−82 12·6	w.	+ 18	−35	−82 30		
4.	−67 40	187 40	Direct.	−82 18·4	n. by w.	+103	−35	−81 10		
			Def. N.	−81 14·9	n. by w.	+103	−81	−80 53		Strong gale, heavy sea, very unsteady.
			Def. S.	−82 28·2	n. by w.	+103	−35	−81 20		
			Mag. N.	−82 07·0	n. by w.	+103	−81	−80 59		
			Mag. S.	−82 22·0	n. by w.	+103	−35	−81 14		
5.	−67 09	188 02	Direct.	−82 13·3	n.	+104	−35	−81 04		
			Def. N.	−81 40·1	n.	+104	−81	−81 17		
			Def. S.	−81 45·6	n.	+104	−35	−80 37		
			Mag. N.	−82 19·7	n.	+104	−35	−81 11	−81 03	Heavy sea, very unsteady.
			Mag. N.S.	−82 01·2	n.	+104	−35	−80 52		
			Mag. S.	−82 16·6	n.	+104	−35	−81 08		
			Direct.	−82 20·0	n.	+104	−35	−81 11		
6.	−65 28	191 24	Direct.	−81 09·3	n. by e.	+102	−35	−80 02		
			Def. N.	−80 06·6	n. by e.	+102	−81	−79 46		
			Def. S.	−80 50·1	n. by e.	+102	−35	−79 43		
			Mag. N.	−80 47·0	n. by e.	+102	−35	−79 40		
			Mag. N.S.	−80 34·9	n. by e.	+102	−35	−79 28	−79 42	South-westerly swell, unsteady.
			Mag. S.	−81 00·6	n. by e.	+102	−35	−79 54		
			Direct.	−81 03·5	n. by e.	+102	−35	−79 57		
	−65 04	192 00	Direct.	−80 44·2	n. by e.	+102	−35	−79 37		
	−64 49	192 21	Direct.	−80 28·9	n. by e. ½ e.	+ 99	−35	−79 25		
			Direct.	−80 30·4	n. by e. ½ e.	+ 99	−35	−79 26		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Mar. 7.	−63° 30′	194° 15′	Direct.	−79° 46·4	N. by E.	+100′	−35′	−78° 41′	° ′	
			Def. N.	−78 34·4	N. by E.	+100	−81	−78 15		
			Def. S.	−79 29·2	N. by E.	+100	−35	−78 24		
			Mag. N.	−79 26·0	N. by E.	+100	−35	−78 21	−78 30	Steady.
			Mag. N.S.	−79 24·0	N. by E.	+100	−35	−78 19		
			Mag. S.	−79 50·3	N. by E.	+100	−35	−78 45		
			Direct.	−79 49·3	N. by E.	+100	−35	−78 44		
8.	−62 17	195 55	Direct.	−78 44·7	N. by E.	+100	−35	−77 40		
			Def. N.	−77 54·4	N. by E.	+100	−81	−77 35		
			Def. S.	−78 25·8	N. by E.	+100	−35	−77 21		
			Mag. N.	−78 27·8	N. by E.	+100	−35	−77 23	−77 30	Steady.
			Mag. N.S.	−78 20·3	N. by E.	+100	−35	−77 15		
			Mag. S.	−78 42·8	N. by E.	+100	−35	−77 38		
			Direct.	−78 40·3	N. by E.	+100	−35	−77 35		
9.	−61 06	198 08	Direct.	−77 41·6	N.E. ½ N.	+ 85	−35	−76 52		
			Def. N.	−76 24·7	N.E. ½ N.	+ 85	−81	−76 22		
			Def. S.	−77 25·9	N.E. ½ N.	+ 85	−35	−76 36		
			Mag. N.	−77 16·4	N.E. by N.	+ 88	−35	−76 23		
			Direct.	−77 38·4	N.E. by N.	+ 88	−35	−76 45	−76 32	Steady.
			Mag. N.S.	−77 11·9	N.E. by N.	+ 88	−35	−76 19		
			Mag. S.	−77 16·9	N.E. by N.	+ 88	−35	−76 24		
			Direct.	−77 28·6	N.E. by N.	+ 88	−35	−76 36		
			Direct.	−77 16·7	N.E.	+ 81	−35	−76 31		
10.	−60 57	199 03	Direct.	−75 32·7	E.N.E.	+ 53	−35	−75 15		
			Def. N.	−74 41·0	E.N.E.	+ 53	−81	−75 19		
			Def. S.	−75 33·6	E.N.E	+ 53	−35	−75 16		
			Mag. N.	−75 14·2	E.N.E.	+ 53	−35	−74 56	−75 08	Table unsteady.
			Mag. N.S.	−75 08·5	E.N.E.	+ 53	−35	−74 51		
			Mag. S.	−75 27·1	E.N.E.	+ 53	−35	−75 09		
			Direct.	−75 30·9	E.N.E.	+ 53	−35	−75 13		
11.	−60 15	208 06	Direct.	−74 20·6	E. by N.	+ 37	−35	−74 19		
			Def. N.	−73 57·2	E. by N.	+ 37	−81	−74 41		
			Def. S.	−74 16·0	E. by N.	+ 37	−35	−74 14		
			Mag. N.	−74 32·4	E. by N.	+ 37	−35	−74 30	−74 21	Strong gale, heavy sea, ship unsteady.
			Mag. N.S.	−74 16·0	E. by N.	+ 37	−35	−74 14		
			Mag. S.	−74 20·9	E. by N.	+ 37	−35	−74 19		
			Direct.	−74 28·5	E. by N.	+ 37	−35	−74 27		
12.	−60 16	211 45	Direct.	−74 07·4	E. by N.	+ 37	−35	−74 05		
			Def. N.	−73 31·1	E. by N.	+ 37	−81	−74 15		
			Def. S.	−74 20·5	E. by N.	+ 37	−35	−74 18		
			Mag. N.	−74 08·9	E. by N.	+ 37	−35	−74 07		
			Mag. N.S.	−74 28·0	E. by N.	+ 37	−35	−74 26	−74 14	Heavy swell, ship unsteady.
			Mag. S.	−74 33·4	E. by N.	+ 37	−35	−74 31		
			Direct.	−74 11·5	E. by N.	+ 37	−35	−74 09		
	−60 18	212 39	Direct.	−73 59·8	E. by N.	+ 37	−35	−73 58		
13.	−59 53	216 28	Direct.	−74 15·6	N.E. ½ E.	+ 74	−35	−73 37		
			Def. N.	−73 29·3	N.E. ½ E.	+ 74	−81	−73 36		
			Def. S.	−74 15·9	N.E. ½ E.	+ 74	−35	−73 37		
			Mag. N.	−74 09·7	N.E. ½ E.	+ 74	−35	−73 31	−73 36	Heavy swell, steering very wildly.
			Mag. N.S.	−74 15·3	N.E. ½ E.	+ 74	−35	−73 36		
			Mag. S.	−74 16·5	N.E. ½ E.	+ 74	−35	−73 37		
			Direct.	−74 18·2	N.E. ½ E.	+ 74	−35	−73 39		
14.	−59 22	218 14	Direct.	−75 02·4	N.E. by E.	+ 69	−35	−74 28		
			Def. N.	−74 26·8	N.E. by E.	+ 69	−81	−74 39		
			Def. S.	−75 01·0	N.E. by E.	+ 69	−35	−74 27		Heavy swell from W.S.W., very unsteady, steering very badly.
			Mag. N.	−74 50·0	N.E. by E.	+ 69	−35	−74 16	−73 48	

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
Mar. 14.	−59° 22′	218° 14′	Mag. N.S.	−74° 58′·0	N.E. by E.	+69′	−35′	−74° 24′	−73° 48′	Heavy swell from W.S.W., very unsteady, steering very badly.
			Mag. S.	−75 01·0	N.E. by E.	+69	−35	−74 27		
			Direct.	−75 09·6	N.E. by E.	+69	−35	−74 36		
			Direct.	−75 07·1	N.E. by E.	+69	−35	−74 33		
			Direct.	−75 13·7	N.E. by E.	+69	−35	−74 40		
15.	−58 49	221 25	Direct.	−73 06·6	E.N.E.	+53	−35	−72 49		
			Def. N.	−72 15·7	E.N.E.	+53	−81	−72 44		
			Def. S.	−73 21·2	E.N.E.	+53	−35	−73 03		
			Mag. N.	−73 08·4	E.N.E.	+53	−35	−72 50		
			Mag. N.S.	−73 13·1	E.N.E.	+53	−35	−72 55		
			Mag. S.	−73 07·7	E.N.E.	+53	−35	−72 50		
			Direct.	−73 10·8	E.N.E.	+53	−35	−72 53		
	−58 48	222 22	Direct.	−74 05·2	E. by N.	+37	−35	−74 03		
16.	−58 59	227 30	Direct.	−73 24·8	E.	+21	−35	−73 39		
	−59 01	227 43	Direct.	−73 21·9	E.	+21	−35	−73 36		
			Def. N.	−72 33·3	E.	+21	−81	−73 30		
			Def. S.	−73 14·1	E.	+21	−35	−73 28		
			Mag. N.	−73 00·4	E.	+21	−35	−73 14	−73 25	Heavy sea from W.S.W., very unsteady, steering very badly.
			Mag. N.S.	−73 09·6	E.	+21	−35	−73 24		
			Mag. S.	−73 07·0	E.	+21	−35	−73 21		
			Direct.	−73 26·6	E.	+21	−35	−73 41		
17.	−59 32	231 46	Direct.	−72 41·3	E.	+21	−35	−72 55		
18.	−60 05	235 56	Direct.	−72 19·5	E. by S.	+ 2	−35	−72 53		
			Def. N.	−71 10·6	E. by S.	+ 2	−81	−72 30		Heavy sea from W.S.W., very unsteady, steering very badly.
			Def. S.	−72 24·0	E. by S.	+ 2	−35	−72 57		
			Mag. N.	−72 29·7	E. by S.	+ 2	−35	−73 03		
			Mag. N.S.	−72 04·7	E. by S.	+ 2	−35	−72 38		
			Mag. S.	−72 52·0	E. by S.	+ 2	−35	−73 25	−73 01	
			Direct.	−73 01·1	E. by N.	+37	−35	−72 59		
	−60 17	236 38	Direct.	−72 59·1	E.	+21	−35	−73 13		
			Def. N.	−71 56·0	E.	+21	−81	−72 56		Table more steady, and steering very well.
			Def. S.	−73 02·3	E.	+21	−35	−73 16		
			Mag. N.	−73 09·9	E.	+21	−35	−73 24		
			Mag. N.S.	−72 59·8	E.	+21	−35	−73 14		
			Mag. S.	−72 54·8	E.	+21	−35	−73 13		
			Direct.	−73 01·8	E.	+21	−35	−73 16		
	−60 24	237 29	Direct.	−73 08·6	E. by N.	+37	−35	−73 06		
			Def. N.	−72 17·2	E. by N.	+37	−81	−73 01	−73 08	Table more steady, and steering very well.
			Def. S.	−73 09·0	E. by N.	+37	−35	−73 07		
			Mag. N.	−73 09·7	E. by N.	+37	−35	−73 08		
			Mag. N.S.	−73 06·2	E. by N.	+37	−35	−73 04		
			Mag. S.	−73 07·2	E. by N.	+37	−35	−73 05		
			Direct.	−73 07·1	E. by N.	+37	−35	−73 05		
19.	−60 00	240 57	Direct.	−71 59·1	E.N.E.	+53	−35	−71 41		Strong gale, heavy sea, steering badly.
20.	−59 18	245 29	Direct.	−72 17·9	N.E.	+78	−35	−71 35		
21.	−59 05	247 17	Direct.	−71 23·1	E. by N.	+37	−35	−71 21		
			Def. N.	−70 26·9	E. by N.	+37	−81	−71 11		
			Def. S.	−71 26·8	E. by N.	+37	−35	−71 25	−71 24	Cross sea, slight motion.
			Mag. N.	−71 32·0	E. by N.	+37	−35	−71 30		
			Mag. N.S.	−71 20·1	E. by N.	+37	−35	−71 18		
			Mag. S.	−71 22·7	E. by N.	+37	−35	−71 21		
			Direct.	−71 20·9	E. by N.	+37	−35	−71 19		
	−59 00	248 49	Direct.	−71 53·4	N.E. ½ E.	+73	−35	−71 15		Head sea, table unsteady.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Mar. 22.	−58 26	251 42	Direct.	−71 06·1	E. by N.	+37	−35	−71 04		
			Def. N.	−70 01·3	E. by N.	+37	−81	−70 45		
			Def. S.	−70 45·2	E. by N.	+37	−35	−70 43		
			Mag. N.	−71 03·3	E. by N.	+37	−35	−71 01	−70 55	Cross sea, unsteady.
			Mag. N.S.	−70 44·0	E. by N.	+37	−35	−70 42		
			Mag. S.	−71 07·8	E. by N.	+37	−35	−71 06		
			Direct.	−71 02·9	E. by N.	+37	−35	−71 01		
23.	−58 33	254 45	Direct.	−70 24·7	E. ½ N.	+30	−35	−70 30		
			Def. N.	−69 05·4	E. ½ N.	+30	−81	−69 56		
			Def. S.	−69 57·5	E. ½ N.	+30	−35	−70 03		
			Mag. N.	−70 02·7	E. ½ N.	+30	−35	−70 08	−70 16	Slight motion.
			Mag. N.S.	−70 21·7	E. ½ N.	+30	−35	−70 27		
			Mag. S.	−70 10·1	E. ½ N.	+30	−35	−70 15		
			Direct.	−70 31·2	E. ½ N.	+30	−35	−70 36		
24.	−58 40	257 32	Direct.	−70 01·8	E. by N.	+37	−35	−70 00		
			Def. N.	−69 09·1	E. by N.	+37	−81	−69 53		
			Def. S.	−69 43·7	E. by N.	+37	−35	−69 42		
			Mag. N.	−69 47·0	E. by N.	+37	−35	−69 45		Slight motion.
			Mag. N.S.	−69 37·4	E. by N.	+37	−35	−69 35		
			Mag. S.	−70 03·0	E. by N.	+37	−35	−70 01	−69 50	
			Direct.	−70 01·8	E. by N.	+37	−35	−70 00		
			Direct.	−69 52·9	E.	+22	−35	−70 06		
	−58 49	258 13	Direct.	−69 51·1	E. by N.	+37	−35	−69 49		Table steady, very slight motion.
	−58 53	258 55	Direct.	−69 24·2	E. by N.	+37	−35	−69 32		
25.	−58 54	263 35	Direct.	−69 17·9	E.N.E.	+53	−35	−69 00		
26.	−58 59	267 50	Direct.	−68 19·8	E. by N. ½ N.	+44	−35	−68 11		
			Def. N.	−67 03·0	E. by N. ½ N.	+44	−81	−67 40		
			Def. S.	−68 05·4	E. by N. ½ N.	+44	−35	−67 56	−68 00	Heavy sea, steering badly, a little motion.
			Mag. N.	−67 44·2	E. by N. ½ N.	+44	−35	−67 35		
			Mag. N.S.	−67 52·6	E. by N. ½ N.	+44	−35	−67 44		
			Mag. S.	−67 52·5	E. by N. ½ N.	+44	−35	−67 44		
			Direct.	−68 15·6	E. by N. ½ N.	+44	−35	−68 07		
27.	−59 01	272 06	Direct.	−67 19·3	E.N.E.	+52	−35	−67 02		
			Def. N.	−66 46·0	E.N.E.	+52	−81	−67 15		
			Def. S.	−67 09·6	E.N.E.	+52	−35	−66 53		
			Mag. N.	−66 53·0	E.N.E.	+52	−35	−66 36		
			Mag. N.S.	−66 59·0	E.N.E.	+52	−35	−66 42	−66 53	A swell from the W.S.W., ship unsteady.
			Mag. S.	−67 05·8	E.N.E.	+52	−35	−66 49		
			Direct.	−67 17·8	E.N.E.	+52	−35	−67 01		
			Direct.	−67 04·7	E.N.E.	+52	−35	−66 48		
28.	−58 54	276 18	Direct.	−66 51·5	N.E. by E.	+64	−35	−66 23		
			Def. N.	−65 48·2	N.E. by E.	+64	−81	−66 05		
			Def. S.	−66 53·4	N.E. by E.	+64	−35	−66 24		
			Mag. N.	−66 15·2	N.E. by E.	+64	−35	−65 46	−66 10	Swell from the W.S.W., ship unsteady.
			Mag. N.S.	−66 18·7	N.E. by E.	+64	−35	−65 50		
			Mag. S.	−66 51·6	N.E. by E.	+64	−35	−66 23		
			Direct.	−66 51·8	N.E. by E.	+64	−35	−66 23		
29.	−58 25	279 44	Direct.	−65 05·3	N.E. by E.	+62	−35	−64 38		
			Direct.	−65 27·9	N.E. by E.	+62	−35	−65 01		
			Def. N.	−64 13·0	N.E. by E.	+62	−81	−64 32		
			Def. S.	−65 20·9	N.E. by E.	+62	−35	−64 54		
			Mag. N.	−65 03·0	N.E. by E.	+62	−35	−64 36	−64 44	Swell from S.W., slight motion.
			Mag. N.S.	−65 01·6	N.E. by E.	+62	−35	−64 35		
			Mag. S.	−65 08·8	N.E. by E.	+62	−35	−64 42		
			Direct.	−65 22·6	N.E. by E.	+62	−35	−64 56		

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Mar. 30.	−58 31	281 33	Direct.	−64 15·6	E.N.E.	+51	−35	−64 00		
			Direct.	−64 25·0	N.E. by E.	+62	−35	−63 58		
			Def. N.	−63 11·3	N.E. by E.	+62	−81	−63 30		
			Def. S.	−64 11·8	N.E. by E.	+62	−35	−63 45		
			Mag. N.	−64 05·6	N.E. by E.	+62	−35	−63 39	−63 48	Swell from S.W., slight motion.
			Mag. N.S.	−64 09·8	N.E. by E.	+62	−35	−63 43		
			Mag. S.	−64 27·0	N.E. by E.	+62	−35	−64 00		
			Direct.	−64 17·7	N.E. by E.	+62	−35	−63 51		
	−58 30	282 07	Direct.	−64 14·9	N.E. by E.	+62	−35	−63 48		
31.	−58 36	285 33	Direct.	−63 42·0	N.E.	+69	−35	−63 08		
			Def. N.	−62 50·6	N.E.	+69	−81	−63 03		
			Def. S.	−63 49·8	N.E.	+69	−35	−63 16		
			Mag. N.	−63 22·5	N.E.	+69	−35	−62 49	−63 00	Swell from S.W., slight motion.
			Mag. N.S.	−63 17·2	N.E.	+69	−35	−62 43		
			Mag. S.	−63 24·6	N.E.	+69	−35	−62 51		
			Direct.	−63 44·5	N.E.	+69	−35	−63 11		
April 1.	−57 21	289 36	Direct.	−62 26·9	N.E. by N.	+71	−35	−61 51		
			Def. N.	−61 16·8	N.E. by N.	+71	−81	−61 27		
			Def. S.	−62 04·7	N.E. by N.	+71	−35	−61 29		
			Mag. N.	−62 04·4	N.E. by N.	+71	−35	−61 28	−61 36	Ship unsteady, steering very wildly.
			Mag. N.S.	−62 12·7	N.E. by N.	+71	−35	−61 37		
			Mag. S.	−62 12·4	N.E. by N.	+71	−35	−61 36		
			Direct.	−62 17·0	N.E. by N.	+71	−35	−61 41		
2.	−57 26	291 32	Direct.	−58 55·8	S.E.	−33	−35	−60 04		
			Def. N.	−57 57·1	S.E.	−33	−81	−59 51		
			Def. S.	−58 43·2	S.E.	−33	−35	−59 51		
			Mag. N.	−58 49·5	S.E.	−33	−35	−59 58	−59 52	Heavy sea, ship unsteady.
			Mag. N.S.	−58 29·2	S.E.	−33	−35	−59 37		
			Mag. S.	−58 23·7	S.E.	−33	−35	−59 32		
			Direct.	−58 59·8	S.E.	−33	−35	−60 08		
	−57 25	292 02	Direct.	−58 22·4	S.S.E.	−62	−35	−59 59		
3.	−56 37	294 34	Direct.	−59 50·8	N.E.	+65	−35	−59 21		
			Def. N.	−58 33·4	N.E.	+65	−81	−58 49		
			Def. S.	−59 43·5	N.E.	+65	−35	−59 13		
			Mag. N.	−59 19·3	N.E.	+65	−35	−58 49	−59 02	Steering badly.
			Mag. N.S.	−59 26·3	N.E.	+65	−35	−58 56		
			Mag. S.	−59 21·8	N.E.	+65	−35	−58 52		
			Direct.	−59 45·5	N.E.	+65	−35	−59 16		
4.	−54 48	297 21	Direct.	−57 27·0	N. by E.	+66	−35	−56 56		
			Def. N.	−56 43·5	N. by E.	+66	−81	−56 58		
			Def. S.	−57 23·2	N. by E.	+66	−35	−56 52		
			Mag. N.	−57 10·4	N. by E.	+66	−35	−56 39	−56 48	Heavy sea, strong breeze, steering badly.
			Mag. N.S.	−57 13·4	N. by E.	+66	−35	−56 42		
			Mag. S.	−57 11·0	N. by E.	+66	−35	−56 40		
			Direct.	−57 19·0	N. by E.	+66	−35	−56 48		
5.	−52 40	299 52	Direct.	−54 40·0	N.N.E.	+58	−35	−54 17		
			Def. N.	−53 51·3	N.N.E.	+58	−81	−54 14		
			Def. S.	−54 43·4	N.N.E.	+58	−35	−54 20		
			Mag. N.	−54 31·9	N.N.E.	+58	−35	−54 09		
			Mag. N.S.	−54 22·3	N.N.E.	+58	−35	−53 59		
			Mag. S.	−54 15·0	N.N.E.	+58	−35	−53 42		
			Direct.	−54 32·3	N.N.E.	+58	−35	−54 09		
	−52 35	300 33	Direct.	−53 51·0	N.N.E.	+58	−35	−53 28		
	−52 28	300 42	Direct.	−53 08·3	N. by E.	+57	−35	−52 46		
			Def. N.	−52 26·4	N. by E.	+57	−81	−52 50		
			Def. S.	−53 07·9	N. by E.	+57	−35	−52 46	−53 25	Ship steady.

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
April 5.	−52° 28′	300° 42′	Mag. N.	−52° 50′·2	N. by E.	+57′	−35′	−52° 28′	−53° 25′	Ship steady.
			Mag. N.S.	−53 05·2	N. by E.	+57	−35	−52 43		
			Mag. S.	−53 00·8	N. by E.	+57	−35	−52 39		
			Direct.	−53 08·4	N. by E.	+57	−35	−52 46		
6.	−51 42	301 36	Direct.	−52 29·0	N.N.W. ½ W.	+54	−35	−52 10		
			Def. N.	−51 20·0	N.N.W. ½ W.	+54	−81	−51 47		
			Def. S.	−52 35·9	N.N.W. ½ W.	+54	−35	−52 17		
			Mag. N.	−52 16·3	N.N.W. ½ W.	+54	−35	−51 57	−52 04	Strong breeze, slight motion.
			Mag. N.S.	−52 20·7	N.N.W. ½ W.	+54	−35	−52 02		
			Mag. S.	−52 25·4	N.N.W. ½ W.	+54	−35	−52 06		
			Direct.	−52 24·5	N.N.W. ½ W.	+54	−35	−52 06		
9.	Port Louis, Falkland Islands.		Direct.	−51 32·8	W. ½ N.	+32	−35	−51 36		Single anchor.
			Def. N.	−50 51·4	W. ½ N.	+32	−81	−51 40		
			Def. S.	−52 09·8	W. ½ N.	+32	−35	−52 13		
11.	−51 32	301 53	Direct.	−51 36·7*			−35	−52 12		
			Def. N.	−50 33·0			−81	−51 54		
			Def. S.	−52 08·6			−35	−52 44		
			Mag. N.	−51 33·1			−35	−52 08		
			Mag. N.S.	−51 34·1			−35	−52 09		
			Mag. S.	−51 42·3			−35	−52 17		
July 25.			Direct.	−51 34·4†			−35	−52 09		
			Def. N.	−51 03·7			−81	−52 25		
			Def. S.	−51 58·7			−35	−52 34		
			Mag. N.	−51 32·8			−35	−52 08		
			Mag. N.S.	−51 33·8			−35	−52 09		
			Mag. S.	−51 43·3			−35	−52 18		
			Direct.	−51 31·6‡	Observed on shore.		−35	−52 07	−52 15	
			Def. N.	−51 00·8			−81	−52 22		
			Def. S.	−51 58·3			−35	−52 33		
			Mag. N.	−51 31·7			−35	−52 07		
			Mag. N.S.	−51 31·4			−35	−52 06		
			Mag. S.	−51 37·5			−35	−52 13		
			Direct.	−51 31·5			−35	−52 07		
			Direct.	−51 32·2§			−35	−52 07		
			Def. N.	−50 59·9			−81	−52 21		
			Def. S.	−51 58·3			−35	−52 33		
			Mag. N.	−51 31·9			−35	−52 07		
			Mag. N.S.	−51 32·3			−35	−52 07		
			Mag. S.	−51 44·3			−35	−52 19		

* Observed on shore; face west.

Direct. ..	−52° 49′·6
Def. N. ..	−53 05·3
Def. S. ..	−52 48·3
Mag. N...	−53 00·8
Mag. N.S.	−53 09·7
Mag. S...	−53 12·1

‡ Observed on shore; face west.

Direct. ..	−52° 39′·5
Def. N. ..	−53 30·8
Def. S. ..	−52 57·9
Mag. N...	−53 05·7
Mag. N.S.	−53 01·8
Mag. S...	−53 12·7
Direct. ..	−52 38·6

† Observed on shore; face west.

Direct. ..	−52° 48′·7
Def. N. ..	−53 42·2
Def. S. ..	−52 48·4
Mag. N...	−53 00·4
Mag. N.S.	−53 06·2
Mag. S...	−53 05·4

§ Observed on shore; face west.

Direct. ..	−52° 41′·5
Def. N. ..	−53 46·8
Def. S. ..	−52 56·4
Mag. N...	−53 04·0
Mag. N.S.	−53 02·4
Mag. S...	−53 07·6

Observations of Inclination. (Continued.)

1842.	Lat.	Long.	Method employed.	Observed Inclination. Face east.	Direction of ship's head.	Corrections. Ship's attraction.	Corrections. Index.	True Inclination.		Remarks.
	° ′	° ′		° ′		′	′	° ′	° ′	
Aug. 15.	Berkeley Sound, Falkland Islands.		Direct.	−51 31·4	E. ½ S.	+22	−35	−51 44		
			Def. N.	−51 00·8	E. ½ S.	+22	−81	−52 00		
			Direct.	−51 45·5	E.	+28	−35	−51 52	−52 03	
			Def. N.	−51 21·2	E.	+28	−81	−52 14		
			Direct.	−51 29·1	E.S.E.	+ 4	−35	−52 00	−52 11	
			Def. N.	−51 06·2	E.S.E.	+ 4	−81	−52 23		
			Direct.	−50 44·9	S.E.	−22	−35	−51 58	−52 02	
			Def. N.	−50 23·4	S.E.	−22	−81	−52 06		
			Direct.	−50 28·8	S.S.E.	−45	−35	−51 49	−51 54	
			Def. N.	−49 52·3	S.S.E.	−45	−81	−51 58		
			Direct.	−50 11·7	S.	−52	−35	−51 39	−51 46	
			Def. N.	−49 38·9	S.	−52	−81	−51 52		
			Direct.	−50 43·1	S.S.W.	−45	−35	−52 03	−52 06	
			Def. N.	−50 03·0	S.S.W.	−45	−81	−52 09		
			Direct.	−50 48·4	S.W.	−22	−35	−51 45	−51 54	
			Def. N.	−50 21·3	S.W.	−22	−81	−52 04		
			Direct.	−51 11·2	W.S.W.	+ 4	−35	−51 42	−51 42	
			Def. N.	−50 25·0	W.S.W.	+ 4	−81	−51 42		
			Direct.	−51 31·3	W.	+28	−35	−51 38	−51 45	
			Def. N.	−50 58·3	W.	+28	−81	−51 51		
			Direct.	−51 59·2	W.N.W.	+44	−35	−51 50	−51 55	
			Def. N.	−51 22·5	W.N.W.	+44	−81	−52 00		
			Direct.	−52 05·8	N.W.	+52	−35	−51 49	−51 53	
			Def. N.	−51 27·5	N.W.	+52	−81	−51 57		
			Direct.	−52 13·7	N.N.W.	+54	−35	−51 55	−51 48	
			Def. N.	−51 14·7	N.N.W.	+54	−81	−51 42		
			Direct.	−52 25·2	N.	+54	−35	−52 06	−51 52	
			Def. N.	−51 11·7	N.	+54	−81	−51 39		
			Direct.	−52 13·6	N.N.E.	+54	−35	−51 55	−51 58	
			Def. N.	−51 33·5	N.N.E.	+54	−81	−52 01		
			Direct.	−52 13·0	N.E.	+52	−35	−51 56	−51 56	
			Def. N.	−51 25·6	N.E.	+52	−81	−51 55		
			Direct.	−52 16·5	E.N.E.	+44	−35	−52 08	−52 07	
			Def. N.	−51 29·7	E.N.E.	+44	−81	−52 07		
									−51 56	

Observations of the Intensity of the Magnetic Force made in Her Majesty's Ship Erebus, with Needle R. F. 5, between April 17, 1841, and August 23, 1842.

Observers Captain Sir James Clark Ross and Lieutenant Alexander Smith, R.N.

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
	° ′	° ′		° ′	°						
Apr. 19.	Magnetic Observatory, Hobarton.		Def. S.	56 28·6	64						Deflector employed R. F. 4.
			Def. N.	53 02·6	63						
	−42 52	147 24	wt. 6 grs.	42 55·7	61						
			wt. 5 grs.	34 23·5	60	Observed on shore.	1·820	.....	....	1·820	
			wt. 4 grs.	26 47·7	60						
			wt. 3 grs.	19 37·2	60						
20.			wt. 2 grs.	13 02·8*	60						
June 29.	At anchor in the river Derwent.		Def. S.	56 40·5	44	N.	1·809	+·024	....	1·832	
			Def. S.	56 44·8	44	N.N.E.	1·806	+·022	....	1·828	
			Def. S.	56 34·3	45	N.E.	1·815	+·018	....	1·833	
			Def. S.	56 26·1	45	E.N.E.	1·820	+·013	....	1·833	
			Def. S.	56 24·4	47	E.	1·821	+·004	....	1·825	
			Def. S.	56 17·8	47	E.S.E.	1·825	−·006	....	1·819	
			Def. S.	55 52·9	48	S.E.	1·846	−·016	....	1·830	
			Def. S.	55 46·5	50	S.S.E.	1·851	−·023	....	1·828	
			Def. S.	55 42·7	48	S	1·854	−·026	....	1·822	1·830
			Def. S.	55 48·7	48	S.S.W.	1·849	−·023	....	1·826	
			Def. S.	55 51·0	48	S.W.	1·847	−·016	....	1·831	
			Def. S.	56 10·3	48	W.S.W.	1·832	−·006	....	1·826	
			Def. S.	56 17·8	48	W.	1·825	+·004	....	1·829	
			Def. S.	56 15·3	48	W.N.W.	1·830	+·013	....	1·843	
			Def. S.	56 30·5	49	N.W.	1·817	+·018	....	1·835	
			Def. S.	56 29·0	48	N.N.W.	1·818	+·022	....	1·840	
			Def. S.	56 32·8	48	N.	1·815	+·024	....	1·839	
July 7.	Running out of Storm Bay.		Def. S.	55 37·6	49	S.E. ½ E.	1·858	−·014	1·842	1·842	
			Def. N.	52 16·3	47	S.E. ½ E.	1·854				
8.	−43 00	148 28	Def. S.	56 20·7	52	N.N.E.	1·823	+·022	1·837	1·837	A heavy head swell.
			Def. N.	53 12·2	52	N.N.E.	1·807				
9.	−42 13	149 25	Def. S.	57 03·3	56	N.N.W.	1·790	+·022	1·809	1·809	A head swell.
			Def. N.	53 37·1	56	N.N.W.	1·785				
10.	−40 54	149 13	Def. S.	57 07·3	54	N. by W.	1·786	+·024	1·804	1·804	
			Def. N.	53 51·6	60	N. by W.	1·773				
11.	−37 50	150 22	Def. N.	54 45·9	56	N. by W.	1·732	+·024	1·756	1·755	
12.	−37 21	151 33	Def. S.	58 08·0	61	N.E.	1·742	+·022	1·754		
			Def. N.	54 59·1	61	N.E.	1·722				
13.	−36 01	151 48	Def. N.	55 08·5	58	N.W. by N.	1·715	+·027	1·742	1·720	Much motion.
14.	−33 52	151 21	Def. S.	59 41·8	60	N.	1·676	+·031	1·708		Running along the land.
			Def. N.	55 55·6	60	N.	1·679				
15.	Garden Island, Sydney.		Def. S.	59 09·0	53		1·698				
			Def. N.	55 35·9	52		1·694				
	−33 51	151 17	wt. 6 grs.	46 51·7	55		1·698				
			wt. 5 grs.	37 43·3	55		1·680				
			wt. 4 grs.	29 09·2	55	Observed on shore.	1·683	.....	1·685	1·685	The results with the face west are included in the mean.
			wt. 3 grs.	21 13·7	55		1·687				
			wt. 2 grs.	13 57·4	56		1·703				
			Def. S.	59 11·4†	52		1·696				
			Def. N.	55 38·1	52		1·692				

* Observed on shore; face west.

wt. 6 grs.	43 07·5	Ther. 58
wt. 5 grs.	34 51·5	Ther. 58
wt. 4 grs.	27 02·7	Ther. 58
wt. 3 grs.	19 55·5	Ther. 60
wt. 2 grs.	13 14·5	Ther. 60

† Observed on shore; face west.

			Intensity.
wt. 6 grs.	47 32·4	Ther. 63	1·688
wt. 5 grs.	37 38·9	Ther. 63	1·704
wt. 4 grs.	29 32·1	Ther. 64	1·680
wt. 3 grs.	21 51·4	Ther. 63	1·667
wt. 2 grs.	14 32·6	Ther. 64	1·662

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
July 15.	−33° 51′	151 17	Def. S.	59° 11′·5	64°	W.	1·696	+·007	1·703		
Aug. 1.	At anchor.		Def. S.	58 21·4	61	S.	1·733	−·032	1·701		
			Def. S.	58 15·6	61	S.S.W.	1·737	−·028	1·709	1·705	
3.			Def. S.	59 29·0	63	N.E.	1·684	+·025	1·709		
5.	Running out of harbour.		Def. S.	59 09·4	63	E. by N.	1·698	+·011	1·709		
			Def. N.	55 46·8	63	E. by N.	1·686	+·011	1·697		
6.	−32 52	154 07	Def. S.	59 25·6	63	E. by N.	1·686	+·011	1·694	1·694	
			Def. N.	55 52·6	63	E. by N.	1·681				
7.	−33 51	157 18	Def. S.	60 05·3	60	E. by N.	1·660	+·011	1·667	1·667	Much motion.
			Def. N.	56 30·2	61	E. by N.	1·652				
8.	−33 27	160 43	Def. S.	60 18·0	63	E. by N.	1·651	+·011	1·655	1·655	
			Def. N.	56 53·1	64	E. by N.	1·638				
9.	−33 38	163 42	Def. S.	60 24·0	60	E.	1·647	+·007	1·642	1·642	
			Def. N.	57 14·4	61	E.	1·623				
10.	−33 41	166 23	Def. S.	61 22·7	63	N.E.	1·609	+·025	1·625	1·625	
			Def. N.	58 01·2	61	N.E.	1·591				
11.	−33 22	167 40	Def. S.	61 19·8	65	E. by N.	1·611	+·012	1·617	1·617	
			Def. N.	57 49·4	67	E. by N.	1·599				
12.	−32 58	169 20	Def. S.	61 40·0	56	E.N.E.	1·598	+·017	1·607	1·607	
			Def. N.	58 14·8	56	E.N.E.	1·582				
13.	−32 12	170 27	Def. S.	62 24·2	56	S.E. by E.	1·572	−·012	1·562		
			Def. N.	58 24·4	55	S.E. by E.	1·576				Much motion.
15.	−33 55	171 54	Def. S.	61 35·7	60	E. ½ S.	1·590	+·004	1·593	1·583	A head sea.
			Def. N.	53 05·6	60	E. ½ S.	1·588				
17.	−34 29	173 36	Def. S.	61 20·0	62	E.S.E.	1·611	−·006	1·594		
			Def. N.	58 02·7	62	E.S.E.	1·590				Much motion.
20.	At anchor.		Def. S.	61 57·7	66	N.W. ½ N.	1·587	+·025	1·612	1·607	
			Def. S.	60 42·9	63	S.	1·634	−·032	1·602		
23.	Bay of Islands, New Zealand.		Def. S.	61 41·1	58		1·599				
			Def. N.	58 00·0	56		1·592				
	−35 16	174 00	wt. 6 grs.	50 38·1	58		1·604				
			wt. 5 grs.	40 10·5	58		1·594				
			wt. 4 grs.	30 55·0	59		1·597				
			wt. 3 grs.	22 47·5	59		1·578				
			wt. 2 grs.	14 59·3*	59		1·590				
Oct. 27.	−35 16	174 00	Def. S.	61 45·2	67	Observed	1·595	.....	1·594	1·594	The results with the face west are included in the mean.
			Def. N.	57 47·1	70	on shore.	1·600				
			wt. 6 grs.	50 35·0	71		1·608				
			wt. 5 grs.	39 59·3	70		1·603				
			wt. 4 grs.	30 30·6	70		1·619				
			wt. 3 grs.	22 45·0	70		1·583				
			wt. 2 grs.	14 43·2	68		1·620				
			Def. S.	61 54·4	65		1·590				
			Def. N.	58 09·1†	65		1·586				
Nov. 23.	−35 15	174 39	Def. S.	61 00·9	63	E.S.E.	1·623	−·006	1·611	1·611	
			Def. N.	57 29·1	63	E.S.E.	1·611				
24.	−36 27	177 34	Def. S.	61 26·7	65	E.S.E.	1·607	−·006	1·612	1·612	
			Def. N.	57 12·7	64	E.S.E.	1·625				

* Observed on shore; face west.

			Intensity.
wt. 6 grs.	51° 26′·0	Ther. 61°	1·591
wt. 5 grs.	40 52·0	Ther. 60	1·590
wt. 4 grs.	30 26·9	Ther. 59	1·633
wt. 3 grs.	23 17·9	Ther. 59	1·568
wt. 2 grs.	15 23·3	Ther. 60	1·571

† Observed on shore; face west.

			Intensity.
wt. 6 grs.	51° 38′·7	Ther. 65°	1·588
wt. 5 grs.	40 51·0	Ther. 65	1·591
wt. 4 grs.	31 29·2	Ther. 65	1·586
wt. 3 grs.	23 17·2	Ther. 64	1·570
wt. 2 grs.	15 11·1	Ther. 64	1·593

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
Nov. 25.	−38° 17′	179° 31′	Def. S	60° 44′·4	62°	S.E. by S.	1·633	−·020	1·614	1·614	
			Def. N.	56 57·2	62	S.E. by S.	1·634				
26.	−39 01	182 12	Def. S.	62 02·7	59	E. by S.	1·585	−·000	1·605	1·615	Very much motion.
			Def. N.	57 12·9	57	E. by S.	1·625				
27.	−39 18	182 58	Def. S.	60 16·0	64	S.	1·652	−·028	1·625		
			Def. N.	56 29·9	62	S.	1·654				
28.	−40 47	183 03	Def. S.	59 58·5	62	S.E. by E.	1·664	−·010	1·659	1·659	
			Def. N.	56 03·4	65	S.E. by E.	1·674				
29.	−41 49	183 41	Def. S.	59 05·1	65	S. by E.	1·701	−·026	1·671	1·671	
			Def. N.	55 37·2	65	S. by E.	1·693				
30.	−43 32	183 03	Def. S.	58 24·9	60	S. ½ W.	1·732	−·027	1·701	1·701	
			Def. N.	54 54·9	59	S. ½ W.	1·724				
Dec. 1.	−45 40	183 20	Def. S.	58 32·2	63	S.E. by E.	1·725	−·010	1·715	1·730	A head sea.
			Def. N.	54 58·7	63	S.E. by E.	1·722				
2.	−47 19	184 40	Def. S.	57 40·9	57	S.E. by E. ½ E.	1·762	−·008	1·745		A heavy swell.
			Def. N.	54 30·5	57	S.E. by E. ½ E.	1·744				
3.	−48 43	186 30	Def. S.	57 41·3	51	S.E. by E.	1·762	−·009	1·752	1·753	
			Def. N.	54 10·1	51	S.E. by E.	1·760				
			wt. 2 grs.	13 28·0	51	E.S.E.	1·765	−·005	1·760		
4.	−49 20	187 41	Def. S.	57 45·8	55	E. by S.	1·757	·000	1·752		
			Def. N.	54 13·1	55	E. by S.	1·758				
			wt. 3 grs.	20 30·2	53	E. by S.	1·745				
			wt. 4 grs.	27 58·0	53	E. by S.	1·750				
5.	−49 27	189 13	Def. S.	57 32·7	55	E. by S.	1·770	·000	1·759	1·759	
			Def. N.	54 16·0	55	E. by S.	1·757				
			wt. 3 grs.	20 18·0	56	E. by S.	1·762				
			wt. 4 grs.	27 32·0	56	E. by S.	1·775				
			wt. 5 grs.	36 30·1	56	E. by S.	1·729				
6.	−50 00	191 00	Def. S.	57 30·2	51	E. by S.	1·771	·000	1·763	1·766	
			Def. N.	54 13·5	51	E. by S.	1·758				
			wt. 3 grs.	20 22·2	51	E. by S.	1·754				
			wt. 4 grs.	27 16·5	51	E. by S.	1·789				
			wt. 5 grs.	36 07·2	51	E. by S.	1·742				
7.	−50 48	192 20	Def. S.	57 07·9	51	S.E. by E.	1·787	−·009	1·774		
			Def. N.	53 45·7	51	S.E. by E.	1·779				
8.	−51 34	194 29	Def. S.	57 06·4	52	E. by S.	1·789	·000	1·792	1·792	
			Def. N.	53 15·7	50	E. by S.	1·804				
			wt. 3 grs.	20 09·1	48	E. by S.	1·771				
			wt. 4 grs.	26 59·7	48	E. by S.	1·804				
			wt. 5 grs.	34 58·0	47	E. by S.	1·791				Weight 5, unsteady.
9.	−52 21	197 53	Def. S.	56 44·5	45	E. by S.	1·805	·000	1·801		
			Def. N.	53 25·1	44	E. by S.	1·797				
10.	−53 01	202 11	Def. S.	56 21·2	48	E. ½ N.	1·824	+·006	1·815	1·808	Much motion.
			Def. N.	53 27·0	47	E. ½ N.	1·794				
11.	−52 48	203 50	Def. N.	53 13·3	45	E.	1·807	+·003	1·809		A head swell.
			Def. S.	56 45·0	46	E.	1·805				
			wt. 3 grs.	19 57·7	46	E.	1·797				
12.	−53 01	205 08	Def. S.	56 37·4	45	E.S.E.	1·811	−·004	1·810	1·810	
			Def. N.	52 57·3	44	E.S.E.	1·818				
			wt. 3 grs.	19 46·7	45	E.S.E.	1·802				
			wt. 4 grs.	26 41·5	45	E.S.E.	1·823				
			wt. 5 grs.	34 25·7	45	E.S.E.	1·815				
13.	−54 55	209 30	Def. S.	56 08·7	52	S.E. by E. ½ E.	1·833	−·007	1·831	1·831	
			Def. N.	52 26·0	51	S.E. by E. ½ E.	1·846				
	−55 08	210 04	Def. S.	56 02·2	49	S.E. by E. ½ E.	1·839				
			Def. N.	52 30·7	48	S.E. by E. ½ E.	1·842				
	−55 20	210 28	Def. S.	56 10·0	45	S.E. by E. ½ E.	1·832				
			Def. N.	52 38·2	44	S.E. by E. ½ E.	1·836				

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
Dec. 14.	−56° 20′	211° 52′	Def. S.	55° 38′·9	51°	S.E. by S.	1·857				
			Def. N.	52 01·3	51	S.E. by S.	1·868				
			wt. 3 grs.	19 37·5	53	S.E. by S.	1·818				
			wt. 4 grs.	26 08·7	52	S.E. by S.	1·860				
			wt. 5 grs.	33 36·0	52	S.E. by S.	1·856	−·016	1·836	1·836	
			wt. 6 grs.	42 36·0	52	S.E. by S.	1·830				
	−56 55	211 38	Def. S.	55 33·2	43	S.E. by S.	1·863				
			Def. N.	51 59·7	43	S.E. by S.	1·868				
15.	−56 55	212 34	Def. S.	55 28·0	41	S.S.E.	1·865				
			Def. N.	52 17·0	40	S.S.E.	1·856	−·017	1·843	1·850	
	−57 21	212 46	Def. S.	55 29·8	42	E.S.E.	1·864				
			Def. N.	52 10·0	41	E.S.E.	1·860	−·004	1·858		
16.	−58 29	213 11	Def. S.	55 19·7	42	S.S.E.	1·872				
			Def. N.	51 52·9	42	S.S.E.	1·874				
	−58 52	213 22	Def. S.	54 57·6	41	S.S.E.	1·889				
			Def. N.	52 04·5	41	S.S.E.	1·865	−·017	1·873	1·873	
			wt. 3 grs.	18 32·2	38	S.S.E.	1·916				
			wt. 4 grs.	25 25·0	38	S.S.E.	1·906				
			wt. 5 grs.	32 31·2	38	S.S.E.	1·907				
17.	−61 03	213 57	Def. S.	54 19·2	39	S.S.E.	1·923				
			Def. N.	51 06·0	36	S.S.E.	1·918	−·017	1·903	1·908	
	−61 37	213 57	Def. S.	54 02·4	34	S. by E.	1·939				
			Def. N.	51 01·2	32	S. by E.	1·922	−·018	1·913		
18.	−62 40	212 53	Def. S.	53 43·6	34	S.	1·953				
			Def. N.	50 50·0	32	S.	1·931	−·019	1·922	1·922	
19.	−63 23	210 02	Def. S.	53 39·8	39	S.S.W.	1·958				
			Def. N.	50 26·0	38	S.S.W.	1·954	−·017	1·939	1·939	
			Def. S.	54 33·8	42	Observed	1·910				
			Def. N.	50 44·7	45	on ice.	1·936	.....	1·923	1·923	
20.	−63 47	208 26	Def. S.	53 58·3	35	S. by W.	1·941				
			Def. N.	50 36·8	34	S. by W.	1·944	−·018	1·924		
			wt. 3 grs.	18 22·9	35	S.W. by S.	1·938			1·930	
			wt. 4 grs.	25 05·6	34	S.W. by S.	1·935				
			wt. 5 grs.	32 11·8	34	S.W. by S.	1·926	−·012	1·934		
			wt. 6 grs.	40 03·5	34	S.W. by S.	1·926				
21.	−64 38	206 53	Def. S.	54 00·1	32	S.	1·940				
			Def. N.	50 35·6	31	S.	1·944	−·016	1·926		
	−64 53	206 30	Def. S.	53 34·4	44	S. by W.	1·963				
			Def. N.	50 23·4	39	S. by W.	1·956	−·015	1·934		
			wt. 3 grs.	18 15·6	33	S. ½ E.	1·942			1·933	
			wt. 4 grs.	24 39·8	33	S.	1·959	−·016	1·934		
			wt. 5 grs.	31 35·1	33	S. by E.	1·955				
			wt. 6 grs.	39 11·3	33	S. by E.	1·954	−·015	1·939		
22.	−65 36	205 32	Def. S.	53 33·1	37	S.	1·964				
			Def. N.	50 00·6	36	S.	1·977	−·016	1·954		
23.	−65 59	204 16	Def. S.	53 51·4	44	E.N.E.	1·948	+·006	1·954		
			Def. S.	53 38·5	37	S. by W.	1·959				
			Def. N.	49 48·2	36	S. by W.	1·996	−·013	1·964		
	−65 59	204 14	Def. S.	53 31·5	39	S.	1·965				
			Def. N.	50 05·6	35	S.	1·973	−·014	1·956		
24.	−65 58	203 51	Def. S.	53 21·6	43	S.W. by S.	1·976				
			Def. N.	50 19·8	43	S.W. by S.	1·959	−·010	1·957	1·955	Fast to a piece of ice.
25.	−66 00	203 46	Def. S.	53 56·5	34	E.	1·943				
			Def. N.	50 19·4	35	E.	1·959	+·002	1·953		
26.	−66 11	203 36	Def. S.	53 43·3	30	S.E. by E.	1·955				
			Def. N.	50 16·2	30	S.E. by E.	1·963	−·005	1·954		
			Def. S.	54 01·9	30	N.W.	1·939				
29	−66 24	203 51	Def. S.	53 51·7	42	N.E.	1·947	+·010	1·953		

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
	° ′	° ′		° ′	°						
Jan. 1.	−66 32	203 32	Def. S.	53 23·8	44	S.S.E.	1·972	−·012	1·966	1·965	Fast to a piece of ice, the Terror distant 25 fathoms. (This result is not employed in the Map.)
			Def. N.	49 53·5	44	S.S.E.	1·984				
3.	−66 35	203 25	Def. S.	53 48·9	39	N. by W. ½ W.	1·950	+·012	1·965		
			Def. N.	50 21·7	37	N. by W. ½ W.	1·957				
6.	−66 06	204 24	Def. S.	53 28·7	41	S.	1·967				
			Def. N.	50 01·7	38	S.	1·976				
			wt. 3 grs.	18 01·8	37	S.	1·964				
			wt. 4 grs.	24 44·9	37	S.	1·953				
			wt. 5 grs.	30 55·2	36	S.	1·994	−·014	1·955		
			wt. 6 grs.	38 50·1	36	S.	1·970				
7.	−66 13	204 25	Def. S.	53 38·9	33	S.	1·958			1·954	Sailing through loose ice.
			Def. N.	50 07·5	32	S.	1·971				
8.	−66 12	204 33	Def. S.	53 50·4	35	N.W.	1·948	+·010	1·958		
			Def. N.	50 32·2	35	N.W.	1·948				
			Def. S.	53 47·9	34	S.S.E.	1·951	−·012	1·939		
10.	−65 59	204 12	Def. S.	53 49·5	36	S.W. by W.	1·949	−·005	1·947		
			Def. N.	50 25·4	30	S.W. by W.	1·955				
			Def. N.	50 15·4	30	E.	1·964				
			wt. 3 grs.	18 09·9	30	E.	1·951				
			wt. 4 grs.	24 37·5	30	E.	1·960	+·002	1·966		
			wt. 5 grs.	31 12·1	30	E.	1·975				
			wt. 6 grs.	38 45·9	30	E.	1·971			1·957	
12.	−65 54	203 32	Def. S.	53 33·4	32	S.W.	1 963	−·008	1·955		
13.	−66 12	203 05	Def. S.	53 41·3	40	S.S.E.	1·957	−·012	1·949		
			Def. N.	50 13·9	36	S.S.E.	1·965				
			Def. S.	54 11·3	30	N.N.E.	1·932	+·012	1·946		
			Def. N.	50 46·1	30	N.N.E.	1·935				
16.	−65 49	202 02	Def. S.	54 03·1	45	Observed on ice.	1·938	.....	1·943	1·943	
			Def. N.	50 35·0	45		1·945				
			wt. 2 grs.	12 13·0	50		1·940				
			wt. 3 grs.	18 32·4	54		1·992				
			wt. 4 grs.	24 49·3	54		1·952				
			wt. 5 grs.	32 02·4	54		1·936				
			wt. 6 grs.	39 31·4	55		1·946				
21.	−66 49	202 40	Def. S.	53 19·1	37	S. by E.	1·975	−·013	1·961		
			Def. N.	50 05·6	36	S. by E.	1·973				
28.	−67 33	204 01	Def. N.	50 24·8	34	N.	1·955	+·012	1·967		
29.	−67 32	203 59	Def. S.	53 28·8	31	S.S.W.	1·967	−·012	1·957	1·960	
			Def. N.	50 08·2	30	S.S.W.	1·971				
30.	−67 18	203 39	Def. S.	53 35·7	38	S.W. ½ S.	1·961				
			Def. N.	50 06·7	36	S.W. ½ S.	1·972	−·009	1·959		
			wt. 3 grs.	18 00·0	34	S W. ½ S.	1·970				
31.	−67 21	202 15	Def. S.	53 36·7	35	S.W.	1·961				
			Def. N.	50 08·2	32	S.W.	1·971				
			wt. 3 grs.	18 19·6	33	S.W.	1·936				
			wt. 4 grs.	24 44·5	33	S.W.	1·953	−·008	1·951	1·951	
			wt. 5 grs.	31 23·7	35	S.W.	1·965				
			wt. 6 grs.	38 52·0	35	S.W.	1·968				
Feb. 2.	−68 07	200 15	Def. S.	53 23·2	31	S.S.E. ½ E.	1·972	−·011	1·971		
			Def. N.	49 46·2	31	S.S.E. ½ E.	1·992				
3.	−68 21	200 03	Def. S.	52 54·7	32	S.E. by S.	1·997	−·010	1·981		
			Def. N.	49 52·6	31	S.E. by S.	1·985			1·975	Much motion.
4.	−68 42	199 44	Def. S.	52 57·1	33	S. ½ E.	1·995				
			Def. N.	49 51·4	30	S. ½ E.	1·987				
			wt. 3 grs.	18 05·7	30	S. ½ E.	1·961	−·014	1·974		
			wt. 4 grs.	23 55·7	29	S. ½ E.	2·014				
			wt. 5 grs.	31 02·0	30	S. ½ E.	1·985				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
	° ′	° ′		° ′	°						
Feb. 5.	−68 59	195 51	Def. S.	53 13·7	33	S.W. by S.	1·981	−·004	1·972		
			Def. N.	50 07·0	32	S.W. by S.	1·972				
6.	−69 48	192 25	Def. S.	52 42·1	36	S. by W.	2·010	−·008	1·991		
			Def. N.	49 49·0	34	S. by W.	1·989				
7.	−70 05	191 10	Def. S.	52 46·1	29	S.W.	2·006	−·005	2·008	1·985	A great deal of motion.
			Def. N.	49 18·3	29	S.W.	2·020				
			Def. S.	53 21·7	33	S.S.W.	1·973	−·007	1·972		
			Def. N.	49 52·7	30	S.S.W.	1·985				
8.	−70 18	186 01	Def. S.	53 05·0	37	S.	1·989				
			Def. N.	49 46·8	33	S.	1·991				
			wt. 3 grs.	18 21·8	31	S.	1·931	−·009	1·977	1·980	
			wt. 4 grs.	24 06·1	31	S.	2·001				
			wt. 5 grs.	30 40·6	31	S.	2·006				
			wt. 6 grs.	38 05·3	30	S.	2·001				
9.	−70 39	185 31	Def. S.	52 56·5	32	S.E. by S.	1·996	−·006	1·987		
			Def. N.	49 47·4	29	S.E. by S.	1·991				
10.	−70 06	181 50	Def. S.	53 09·0	33	W. by S.	1·985	·000	1·981		A head swell.
			Def. N.	50 00·2	31	W. by S.	1·978				
11.	−70 10	181 34	Def. N.	50 03·7	33	S.W.	1·975	−·005	1·972	1·983	Much motion.
12.	−71 00	180 44	Def. S.	52 49·2	33	S.E. by S.	2·003	−·005	1·992		
			Def. N.	49 45·7	32	S.E. by S.	1·992				A heavy cross sea.
13.	−72 46	181 46	Def. S.	52 55·6	34	S.E. by S.	1·997				
			Def. N.	49 45·5	32	S.E. by S.	1·992				
			wt. 3 grs.	18 17·2	31	S.E. by S.	1·940	−·003	1·973	1·973	
			wt. 4 grs.	24 23·0	31	S.E. by S.	1·975				
16.	−74 56	173 36	Def. S.	53 16·1	26	S.S.E.	1·979				
			Def. N.	49 49·5	26	S.S.E.	1·988	−·003	1·998		
			wt. 3 grs.	17 23·0	26	S.S.E.	2·036				
	−75 10	173 08	Def. S.	52 39·5	36	E.	2·017				
			Def. N.	49 45·9	30	E.	1·992				
			wt. 3 grs.	17 20·9	27	E.	2·039			2·008	Very unsteady.
			wt. 4 grs.	23 58·7	27	E.	2·009	+·001	2·009		
			wt. 5 grs.	30 59·1	28	E.	1·987				
			wt. 6 grs.	38 02·3	27	E.	2·002				
17.	−76 00	175 15	Def. S.	52 38·3	33	E.N.E.	2·014	+·002	2·010		
			Def. N.	49 33·5	31	E.N.E.	2·004				
18.	−76 58	181 03	Def. S.	53 00·7	28	E.N.E.	1·993	+·002	2·003	2·005	
			Def. N.	49 29·3	27	E.N.E.	2·009				
19.	−76 42	184 09	Def. S.	53 06·2	25	N. by E.	1·988	+·004	2·001		
			Def. N.	49 31·3	25	N. by E.	2·007				Ship pitching.
22.	−76 42	194 48	Def. S.	52 59·0	30	N. by E.	1·993	+ 004	1·999		
			Def. N.	49 41·0	28	N. by E.	1·997				
	−77 05	194 38	Def. S.	53 10·6	36	E. by S.	1·984				
			Def. N.	49 57·5	33	E. by S.	1·981				
			wt. 3 grs.	18 06·5	29	E. by S.	1·960			1·993	A swell from the south.
			wt. 4 grs.	23 18·7	29	E. by S.	2·063	+·001	1·991		
			wt. 5 grs.	31 25·7	29	E. by S.	1·961				
			wt. 6 grs.	38 04·1	29	E. by S.	2·000				
25.	−74 50	193 45	Def. S.	53 14·8	30	W.	1·980	+·001	1·983	1·983	
			Def. N.	49 54·3	29	W.	1·984				
26.	−72 46	189 59	Def. S.	53 30·5	37	N.W. by W.	1·966	+·002	1·972		
			Def. N.	50 04·5	31	N.W. by W.	1·974			1·974	
27.	−72 01	187 35	Def. S.	53 32·7	26	W. by S.	1·964	+·000	1·976		
			Def. N.	49 49·1	25	W. by S.	1·989				
28.	−71 08	184 59	Def. S.	53 27·6	31	W.	1·968	+·001	1·975		
			Def. N.	49 57·0	26	W.	1·981			1·993	
			wt. 3 grs.	17 39·5	25	W.S.W.	2·004	·000	2·012		
			wt. 4 grs.	23 52·0	25	W.S.W.	2·020				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
Mar. 1.	−69° 52′	180° 00′	Def. S.	53° 10·7	33°	W. by N.	1·983	+·003	1·980	1·978	A swell from the northward.
			Def. N.	50 06·0	31	W. by N.	1·972				
	−69 44	179 53	Def. S.	53 28·1	32	N. by E.	1·968	+·007	1·976		
			Def. N.	50 09·7	29	N. by E.	1·969				
2.	−68 04	183 25	Def. S.	54 05·0	33	N.N.E.	1·936	+·008	1·962	1·965	
			Def. N.	50 06·7	32	N.N.E.	1·972				
			Def. S.	53 46·5	34	N.E. by N.	1·951	+·008	1·969		
			Def. N.	50 09·3	32	N.E. by N.	1·970				
3.	−67 32	185 09	Def. S.	53 24·5	30	E.N.E.	1·971	+·005	1·976	1·964	
			Def. N.	50 08·8	31	E.N.E.	1·971				
5.	−67 16	188 10	Def. N.	50 40·2	35	N. by E.	1·941	+·010	1·952		A very heavy swell from westward, observations very uncertain.
6.	−65 25	191 48	Def. N.	50 38·3	34	N. by E.	1·943				
7.	−63 30	194 52	Def. S.	54 11·9	40	N. by E.	1·930	+·010	1·936	1·925	
			Def. N.	50 54·2	35	N. by E.	1·927				
			wt. 3 grs.	18 26·2	33	N. by E.	1·925				
			wt. 4 grs.	25 10·3	33	N. by E.	1·922				
8.	−62 16	196 10	Def. S.	54 52·7	35	N. by E.	1·893	+·010	1·903		
			Def. N.	51 32·2	35	N. by E.	1·893				
9.	−61 14	198 38	Def. S.	54 38·4	43	N.E. by N.	1·907	+·013	1·914	1·909	
			Def. N.	51 23·2	35	N.E. by N.	1·902				
			wt. 3 grs.	19 06·9	33	N.E. by N.	1·859				
			wt. 4 grs.	25 25·5	35	N.E. by N.	1·905				
			wt. 5 grs.	32 00·5	34	N.E. by N.	1·933				
	−60 50	200 11	Def. S.	55 00·4	38	E.N.E.	1·888	+·007	1·895		
			Def. N.	51 37·2	35	E.N.E.	1·888				
10.	−60 18	204 11	Def. S.	55 52·5	35	E. by N.	1·844	+·005	1·869	1·869	Cross sea, ship very unsteady.
			Def. N.	51 56·5	34	E. by N.	1·871				
12.	−60 13	211 34	Def. S.	55 28·0	35	E. by N.	1·862				A heavy swell, very unsteady.
			Def. N.	51 47·5	35	E. by N.	1·879				
14.	−59 24	218 58	Def. S.	55 52·2	37	N.E. by E.	1·846	+·011	1·863	1·863	A heavy swell, very unsteady.
			Def. N.	52 20·0	37	N.E. by E.	1·851				
	−59 16	219 30	Def. S.	55 37·4	37	N.E. by E.	1·859				
			Def. N.	52 18·2	37	N.E. by E.	1·853				
15.	−58 04	222 04	Def. S.	55 54·2	37	E.N.E.	1·844	+·009	1·864		
			Def. N.	52 16·4	37	E.N.E.	1·844				
			wt. 3 grs.	18 57·0	38	E.N.E.	1·876				
16.	−59 04	228 57	Def. S.	55 28·7	39	E.	1·864	+·002	1·869	1·875	A great deal of motion.
			Def. N.	51 57·5	39	E.	1·870				
17.	−59 39	232 48	Def. S.	55 21·3	39	E. ½ S.	1·872	+·001	1·878		
			Def. N.	51 57·5	39	E. ½ S.	1·870				
	−59 45	233 53	Def. S	55 12·0	40	E. ½ S.	1·879				
			Def. N.	51 41·2	38	E. ½ S.	1·885				
18.	−60 16	236 11	Def. S.	54 40·7	36	E. by S.	1·901	·000	1·897	1·894	Very unsteady.
			Def. N.	51 33·2	35	E. by S.	1·893				
			Def. S.	55 00·2	37	E.	1·888	+·003	1·892		Ship rolling, very unsteady.
	−60 21	237 02	Def. S.	55 12·5	39	E.	1·879				
			Def. N.	51 25·6	39	E.	1·899				
	−60 20	237 50	Def. S.	55 33·4	39	E. by N.	1·862	+·009	1·890	1·892	
			Def. N.	51 25·5	39	E. by N.	1·899				
	−60 19	238 00	Def. S.	55 10·2	40	E. by N. ½ N.	1·880	+·010	1·894		
			Def. N.	51 37·9	39	E. by N. ½ N.	1·887				
19.	−60 01	241 38	Def. S.	55 58·9	39	E.N.E.	1·841	+·011	1·851	1·846	Much motion.
			Def. N.	52 25·0	37	E.N.E.	1·846				
			Def. S.	56 13·5	42	E.N.E.	1·829				
			Def. N.	52 30·0	40	E.N.E.	1·842				
21.	−59 15	248 12	Def. S.	56 07·0	39	E. by N.	1·836	+·009	1·839		
			Def. N.	52 51·5	38	E. by N.	1·824				
	−58 58	249 24	Def. S.	56 11·2	39	N.E. by E.	1·831	+·015	1·841		
			Def. N.	52 56·0	38	N.E. by E.	1·820				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.		Remarks.
Mar. 22.	−58° 29′	252° 22′	Def. S.	56° 30′·5	38°	E. ½ S.	1·816	+·002	1·816		
			Def. N.	53 05·6	38	E. ½ S.	1·812				
23.	−58 35	255 10	Def. S.	56 36·0	34	E. ½ N.	1·812			1·807	A head sea.
			Def. N.	53 13·2	33	E. ½ N.	1·807				
25.	−58 44	257 49	Def. S.	56 35·8	36	E. ½ N.	1·812	+·006	1·804		
			Def. N.	53 16·7	35	E. ½ N.	1·803				
			wt. 3 grs.	20 17·0	34	E. ½ N.	1·756				
26.	−59 02	268 30	Def. S.	57 19·2	47	E. by N. ½ N.	1·778	+·012	1·783		
			Def. N.	54 05·2	45	E. by N. ½ N.	1·763				
27.	−59 02	272 02	Def. S.	58 55·6	37	E.N.E.	1·707	+·014	1·722	1·733	Ship unsteady.
			Def. N.	55 17·7	35	E.N.E.	1·708				
28.	−58 50	277 12	Def. S.	59 34·0	40	N.E. by E.	1·681	+·018	1·694		
			Def. N.	56 07·7	39	N.E. by E.	1·671				
29.	−58 23	280 03	Def. S.	60 45·2	44	N.E. ½ E.	1·633	+·019	1·651		
			Def. N.	57 03·0	45	N.E. ½ E.	1·631				
30.	−58 29	282 04	Def. S.	60 30·3	40	N.E. by E. ½ E.	1·643	+·016	1·651	1·639	
			Def. N.	57 08·2	40	N.E. by E. ½ E.	1·627				
31.	−58 29	286 04	Def. N.	58 34·2	45	N.E. by N.	1·570	+·024	1·594		A heavy swell from the southward.
Apr. 1.	−57 22	289 50	Def. S.	63 22·7	47	N.E. by N.	1·539	+·025	1·554		
			Def. N.	60 00·8	47	N.E. by N.	1·519			1·532	
2.	−57 10	292 11	Def. S.	63 27·2	44	S.E.	1·535	−·017	1·510		
			Def. N.	59 57·5	44	S.E.	1·520				
3.	−56 40	294 46	Def. S.	65 38·2	46	N.E.	1·465				
			Def. N.	61 36·2	45	N.E.	1·469	+·023	1·466	1·466	
4.	−54 50	298 10	Def. N.	64 10·7	44	N.E.	1·395				
5.	−52 54	300 57	Def. S.	70 13·4	48	N.N.E.	1·342				
			Def. N.	66 55·7	45	N.N.E.	1·327				
			wt. 3 grs.	27 57·7	43	N.N.E.	1·300	+·025	1·355	1·355	
			wt. 4 grs.	37 33·2	44	N.N.E.	1·340				
			wt. 5 grs.	49 40·7	44	N.N.E.	1·343				
11.	Port Louis, Falkland Islands.		Def. S.	70 51·3	47		1·328				
			Def. N.	67 08·1	47		1·322				
	−51 32	301 53	wt. 2 grs.	18 31·1	45		1·291				
			wt. 3 grs.	27 42·7	45		1·311				
			wt. 4 grs.	37 58·5	43		1·331				
			wt. 5 grs.	48 55·9	43		1·361				
			wt. 6 grs.	66 49·8*	43	Observed	1·345				
Aug. 19.			wt. 2 grs.	17 57·1	37	on shore.	1·330	.....	1·322	1·322	The results with the "face west" are included in the mean.
			wt. 3 grs.	27 43·3	37		1·310				
			wt. 4 grs.	37 40·4	37		1·339				
			wt. 5 grs.	49 31·4	38		1·347				
			wt. 6 grs.	67 23·4*	38		1·339				
			Def. S.	71 32·4	34		1·311				
			Def. N.	67 12·6	35		1·320				

* Observed on shore; face west.

		Temp.	Intensity.
wt. 2 grs.	18° 50′·4	42	1·287
wt. 3 grs.	28 30·0	42	1·296
wt. 4 grs.	38 51·0	41	1·315
wt. 5 grs.	51 27·9	41	1·326
wt. 6 grs.	68 40·3	41	1·332
wt. 2 grs.	18 32·9	39	1·306
wt. 3 grs.	28 26·6	40	1·299
wt. 4 grs.	39 05·3	40	1·309
wt. 5 grs.	51 19·2	40	1·329
wt. 6 grs.	69 35·7	40	1·324

Observations of the Intensity of the Magnetic Force made in Her Majesty's Ship Terror, with Needle F. C. B., between April 16, 1841, and August 15, 1842.

Observers Captain Francis Rawdon Crozier, and Mr. Thomas Moore, Mate, R.N.

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
	° ′	° ′		° ′	°					
Apr. 17.	Hobarton Magnetic Observatory.		Def. S.	33 20·4	60					A spare needle marked C. was used as a deflector, and the observations with it are those registered as "Deflector S." and "Deflector N." The deflecting magnets belonging to the apparatus were also employed, N alone, and N. and S. conjointly. The observations with these are distinguished as "Mag. N." and "Mag. N.S." The temperatures are taken from the register in the Erebus.
			Mag. N.S.	39 59·2	60					
	−42 52	147 24	Mag. N.	30 04·0	60					
			Def. S.	21 03·1	60					
19.			wt. 1 gr.*	12 11·9	60					
			wt. 1½ gr.	18 29·4	60					
			wt. 2 grs.	25 13·7	60	Observed on shore.	1·820	.....	1·820	
			wt. 2½ grs.	31 43·0	60					
			wt. 3 grs.	39 02·3	60					
			wt. 3½ grs.	46 51·3	60					
20.			Def. N.	36 00·6	60					
			Def. S.	33 25·6	60					
			Mag. N.S.	40 11·6	60					
			Mag. N.	30 24·1	60					
June 22.	At anchor in the river Derwent.		Def. N.	35 58·5	48	W.	1·821			
			Def. N.	35 49·1	48	W.S.W.	1·831			
			Def. N.	35 34·5	48	S.W.	1·844			
			Def. N.	35 09·6	48	S.S.W.	1·868			
			Def. N.	35 09·3	48	S.	1·868			
			Def. N.	34 58·0	48	S.S.E.	1·879			
			Def. N.	35 00·0	48	S.E.	1·877			
			Def. N.	34 59·9	48	E.S.E.	1·877			
			Def. N.	35 06·4	48	E.	1·871			
			Def. N.	35 13·9	48	E.N.E.	1·863			
			Def. N.	35 18·4	48	N.E.	1·859			
			Def. N.	35 21·6	48	N.N.E.	1·857			
			Def. N.	35 23·0	48	N.	1·855			
			Def. N.	35 23·7	48	N.N.W.	1·854			
			Def. N.	36 04·1	48	N.W.	1·816			
			Def. N.	35 21·4	48	W.N.W.	1·857			
July 7.	Storm Bay.		Def. N.	34 57·0	48	S.E. ¾ E.	1·880	−·012	1·860	Very steady.
			Def. S.	32 40·0	48	S.E. ¾ E.	1·864			
8.	−43 03	148 20	Def. N.	35 23·6	52	W. ½ N.	1·854	+·006	1·849	Very steady.
			Def. S.	33 11·5	52	W. ½ N.	1·832			
9.	−42 24	149 30	Def. N.	36 03·7	56	N.N.W.	1·816	+·022	1·822	Very steady.
			Def. S.	33 57·6	56	N.N.W.	1·785			
10.	−40 51	149 28	Def. N.	36 33·8	56	N. by W.	1·787	+·025	1·814	Very steady.
			Def. S.	33 51·3	56	N. by W.	1·792			
11.	−38 17	150 22	Def. N.	36 46·1	56	N. by E.	1·775	+·027	1·785	Very steady.
			Def. S.	34 43·3	56	N. by E.	1·741			
12.	−37 28	151 30	Def. N.	37 09·4	61	N.E. ½ N.	1·752	+·023	1·758	Slight motion.
			Def. S.	35 06·4	61	N.E. ½ N.	1·718			Steering very steady.
13.	−36 21	151 39	Def. N.	37 15·1	58	N.N.W. ½ W.	1·747	+·026	1·738	Heavy cross sea, unsteady.
14.	−34 06	151 19	Def. N.	38 06 6	60	N.	1·697	+·031		A slight motion.
			Def. S.	35 42·8	60	N.	1·681			Steering steady.
19.	Garden Island, Port Jackson.		Def. N.	38 05·9	60	Observed on shore.	1·697			
	−33 51	151 17	Def. S.	35 15·7	60		1·708			

* Observed on shore; face west.

wt. 1 gr.	11 42·0	Intensity 1·820
wt. 1½ gr.	17 52·6	
wt. 2 grs.	24 15·6	
wt. 2½ grs.	31 00·7	
wt. 3 grs.	38 42·3	
wt. 3½ grs.	46 06·3	

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
July 19.	Garden Island, Port Jackson.		Mag. N.S.	41 45·3	60	Observed on shore.	1·705			
			Mag. N.	31 47·2	60		1·696			
			Mag. S.	22 06·6	60					
			wt. 1 gr.*	13 08·8	60		1·691			
			wt. 1½ gr.	20 02·0	60		1·685	.....	1·699	Including the results with the "face west."
			wt. 2 grs.	27 00·7	60		1·708			
			wt. 2½ grs.	34 25·2	60		1·692			
			wt. 3 grs.	42 06·9	60		1·709			
			wt. 3½ grs.	51 13·5	60		1·703			
Aug. 5.	Running out of harbour.		Def. N.	37 45·1	63	E. by N. ½ N.	1·718			
			Def. S.	35 36·2	63	E. by N. ½ N.	1·688	+·014	1·719	A head swell.
			Def. N.	37 36·2	63	E. by N. ½ N.	1·726			
			Def. S.	35 34·5	63	E. by N. ½ N.	1·690			
6.	—34 01	153 17	Def. N.	38 06·3	63	E. by N.	1·698			
			Def. S.	36 11·3	63	E. by N.	1·654	+·011	1·703	
	—33 54	153 54	Def. N.	37 32·3	63	E. by N.	1·731			
			Def. S.	35 38·8	63	E. by N.	1·685			
7.	—33 56	156 38	Def. N.	38 16·4	61	E. by N.	1·688	+·011	1·679	Steering wildly, much motion.
			Def. S.	36 19·2	61	E. by N.	1·647			
8.	—33 31	160 20	Def. N.	38 36·0	63	E. by N.	1·669	+·011	1·671	A good deal of motion, steering tolerably.
			Def. S.	36 13·2	63	E. by N.	1·652			
9.	—33 42	163 34	Def. N.	38 58·3	61	E.	1·648			
			Def. S.	36 16·0	61	E.	1·650	+·007	1·658	Much motion, steering badly.
		164 05	Def. N.	38 46·2	61	E.	1·659			
			Def. S.	36 18·3	61	E.	1·648			Motion violent, steering wild.
10.	—33 47	166 39	Def. N.	38 57·3	62	E. by N. ½ N.	1·648	+·014		
			Def. S.	37 01·9	62	E. by N. ½ N.	1·604		1·627	A long swell, motion quick, steering well.
	—33 42	166 36	Def. N.	39 30·7	62	E.	1·616			
			Def. S.	36 57·2	62	E.	1·609	+·007		
			Mag. N.	32 50·1	62	E.	1·609			
			Mag. S.	23 37·2	62	E.				
11.	—33 34	167 37	Def. N.	40 07·5	66	N.E. by E.	1·579			
			Def. S.	37 58·5	66	N.E. by E.	1·549			
			Mag. N.	33 03·0	66	N.E. by E.	1·592	+·020	1·600	
			Mag. S.	23 12·0	66	N.E. by E.				Light wind, heavy swell, with quick motion.
			Mag. N.S.	43 13·0	66	N.E. by E.	1·590			
			Def. N.	39 46·4	66	E.	1·600	+·007		
12.	—32 58	169 20	Def. N.	40 10·5	56	E.N.E.	1·576			
			Def. S.	37 19·5	56	E.N.E.	1·586	+·018		
			Mag. N.	32 56·3	56	E.N.E.	1·601		1·607	
			Mag. S.	24 07·8	56	E.N.E.				Wind fresh, motion quick, steering badly.
			Mag. N.S.	43 17·9	56	N.E.	1·585	+·026		
13.	—32 12	170 27	Def. N.	39 31·5	55	S.E. by E.	1·615			A head sea, steering steadily.
			Def. S.	37 17·6	55	S.E. by E.	1·588			
14.	—32 11	171 20	Def. N.	38 55·5	55	S.E. by E.	1·650			
			Def. S.	36 58·7	55	S.E. by E.	1·607	—·012	1·589	Strong wind, heavy sea, motion quick, ship steering well.
			Mag. N.	33 30·8	55	S.E. by E.	1·554			
			Mag. N.S.	43 09·9	55	S.E. by E.	1·595			
			Mag. S.	23 34·3	55	S.E. by E.				

* Observed on shore; face west.

	°	′	Intensity.
wt. 1 gr.	12	44·1	1·674
wt. 1½ gr.	19	03·3	1·712
wt. 2 grs.	26	01·2	1·705
wt. 2½ grs.	33	17·7	1·709
wt. 3 grs.	41	35·2	1·715
wt. 3½ grs.	51	02·1	1·687

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Aug. 15.	−33° 55′	171° 59′	Def. N.	39° 35′·3	60°	E. by S.	1·611	·000		
			Def. N.	39 46·2	60	E. ½ N.	1·600	+·010		
	−33 58	172 06	Def. N.	39 09·4	60	E.S.E.	1·637		1·601	A head sea, table very unsteady.
			Def. S.	37 06·3	60	E.S.E.	1·600	−·006		
			Mag. N.	33 20·9	60	E.S.E.	1·566			
			Mag. N.S.	43 00·2	60	E.S.E.	1·609			
			Mag. S.	23 21·3	60	E.S.E.				
16.	−34 15	172 50	Def. N.	39 43 1	61	N.W. by N.	1·603			
			Def. S.	37 44·5	61	N.W. by N.	1·562			
			Mag. N.	33 10·3	61	N.W. by N.	1·583	+·029		
			Mag. N.S.	43 25·9	61	N.W. by N.	1·573		1·597	A head sea, wind strong, steering well.
			Mag. S.	23 38·1	61	N.W. by N.				
			Mag. N.S.	43 40·5	61	E. by S. ½ S.	1·554	−·004		Heavy swell, steering well.
17.	−34 24	173 43	Def. N.	38 52·7	62	E. by S. ½ S.	1·653			
			Def. S.	36 57·2	62	E. by S. ½ S.	1·609			
			Mag. N.	32 46·0	62	E. by S. ½ S.	1·616	−·004	1·619	Strong wind, good deal of motion,
			Mag. N.S.	42 50·3	62	E. by S. ½ S.	1·622			
			Mag. S.	23 06·2	62	E. by S. ½ S.				
18.	?	?	Def. N.	38 54·8	64	S.W.	1·631	−·018		A heavy sea, steering wild,
21.	Bay of Islands, New Zealand.		Def. N.	39 40·9	59		1·606			
			Def. S.	36 59·8	59		1·606			
			Mag. N.	32 50·2	59		1·610			
	−35 16	174 00	Mag. N.S.	43 01·9	59		1·606			
			Mag. S.	23 37·6	59					
			wt. 1 gr.*	14 03·2	59		1·584			
			wt. 1½ gr.	21 17·9	59		1·601			
			wt. 2 grs.	28 22·1	59		1·633			
			wt. 2½ grs.	36 50·7	59		1·596			
			wt. 3 grs.	44 58·3	59		1·622			
			wt. 3½ grs.	55 09·9	59	Observed	1·618			
Oct. 29.			Def. N.	39 32·8	64	on shore.	1·613	.....	1·608	At the Magnetic Observatory, (The results with "face west" are included in the mean.)
			Def. S.	36 57·6	64		1·608			
			Mag. N.	32 51·5	64		1·608			
			Mag. N.S.	42 54·9	64		1·616			
			Mag. S.	23 37·6	64					
			wt. 1 gr.†	13 51·7	64		1·606			
			wt. 1½ gr.	20 53·0	64		1·620			
			wt. 2 grs.	28 22·4	64		1·633			
			wt. 2½ grs.	37 05·6	64		1·587			
			wt. 3 grs.	45 02·2	64		1·621			
			wt. 3½ grs.	55 19·1	64		1·616			
Nov. 23.	Running out of Bay of Islands, off Arch Point.		Def. N.	39 41·1		E. by S.	1·605	+·004	1·610	Ship steady, about one mile off shore,
			Def. S.	36 59·1		E. by S.	1·607			
24.	−36 20	177 27	Def. N.	39 11·0		E.S.E.	1·635			
			Def. S.	36 24·1		E.S.E.	1·642	+·001	1·616	Ship not very steady, a sea from S.W.
			Mag. N.	33 07·5		E.S.E.	1·586			
			Mag. N.S.	43 07·0		E.S.E.	1·599			
			Mag. S.	23 09·3		E.S.E.				

* Observed on shore; face west.

		Intensity.
wt. 1 gr.	13° 24′·3	1·592
wt. 1½ gr.	20 30·5	1·595
wt. 2 grs.	27 46·9	1·605
wt. 2½ grs.	35 43·0	1·607
wt. 3 grs.	44 38·7	1·619
wt. 3½ grs.	55 23·7	1·594

† Observed on shore; face west.

		Intensity.
wt. 1 gr.	13° 26′·8	1·588
wt. 1½ gr.	20 16·4	1·616
wt. 2 grs.	27 38·8	1·613
wt. 2½ grs.	35 45·1	1·606
wt. 3 grs.	44 47·7	1·616
wt. 3½ grs.	55 26·4	1·594

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
	° ′	° ′		° ′	°					
Nov. 25.	−38 00	179 34	Def. N.	39 01·2		S.E. by S.	1·645			
			Def. S.	36 28·2		S.E. by S.	1·638			
			Mag. N.	32 25·3		S.E. by S.	1·645	−·018		A head sea, table not very steady.
			Mag. N.S.	42 31·1		S.E. by S.	1·647			
			Mag. S.	23 06·8		S.E. by S.			1·634	
	−38 27	179 59	Def. N.	38 52·4		S.E. by E. ½ E.	1·654			
			Def. S.	36 29·4		S.E. by E. ½ E.	1·637			A sea from the S.W., ship unsteady.
			Mag. N.	32 22·4		S.E. by E. ½ E.	1·643	−·002		
			Mag. N.S.	42 30·0		S.E. by E. ½ E.	1·648			
			Mag. S.	22 37·9		S.E. by E. ½ E.				
26.	−38 48	182 05	Def. N.	39 12·6		E.S.E.	1·633			
			Def. S.	36 36·7		E.S.E.	1·629	+·001		
			Def. N.	39 06·7		S.E.	1·639			Ship very steady, steering well.
			Def. S.	36 32·6		S.E.	1·633			
			Mag. N.	32 23·2		S.E.	1·648	−·013	1·640	
			Mag. N.S.	42 20·3		S.E.	1·662			
			Mag. S.	22 23·4		S.E.				
	−39 02	182 05	Def. N.	38 54·4		E.S.E.	1·653			
			Def. S.	36 15·2		E.S.E.	1·650	+·001		Head sea, much motion.
			Mag. N.	32 30·5		E.S.E.	1·638			
			Mag. N.S.	42 19·3		E.S.E.	1·663			
			Mag. S.	22 25·8		E.S.E.				
27.	−39 14	182 54	Def. N.	38 52·7	63	S.E. by E.	1·653			
			Def. S.	36 27·2	63	S.E. by E.	1·639			
			Mag. N.	32 35·6	63	S.E. by E.	1·631	−·006		A swell from the S.E., ship steady.
			Mag. N.S.	42 34·9	63	S.E. by E.	1·641			
			Mag. S.	22 45·9	63	S.E. by E.				
	−39 31	183 00	Def. N.	38 39·5	63	S. by E.	1·666			
			Def. S.	35 59·9	63	S. by E.	1·665			
			Mag. N.	32 11·1	63	S. by E.	1·663	−·024		Steering well, ship steady.
			Mag. N.S.	42 13·5	63	S. by E.	1·666			
			Mag. S.	22 43·5	63	S. by E.			1·652	
28.	−40 35	183 00	Def. N.	38 32·3	64	E.S.E.	1·673			
			Def. S.	35 52·8	64	E.S.E.	1·672			
			Mag. N.	32 12·2	64	E.S.E.	1·662	·000		Very steady.
			Mag. N.S.	41 59·7	64	E.S.E.	1·686			
			Mag. S.	22 29·6	64	E.S.E.				
	−40 50	183 11	Def. N.	38 27·2	64	S.S.E. ½ E.	1·678			
			Def. S.	35 35·2	64	S.S.E. ½ E.	1·689			
			Mag. N.	32 02·5	64	S.S.E. ½ E.	1·675	−·019		
			Mag. N.S.	41 46·1	64	S.S.E. ½ E.	1·706			
			Mag. S.	22 29·8	64	S.S.E. ½ E.				
29.	−41 34	183 40	Def. N.	38 16·1	65	S. by E.	1·689			
			Def. S.	35 28·7	65	S. by E.	1·695			
			Mag. N.	31 55·0	65	S. by E.	1·686			
			Mag. N.S.	41 32·6	65	S. by E.	1·720			
			Mag. S.	22 14·3	65	S. by E.				
			wt. 1 gr.	13 24·0	65	S. by E.	1·660	−·023	1·666	Very steady.
			wt. 1½ gr.	20 07·1	65	S. by E.	1·678			
			wt. 2 grs.	26 39·6	65	S. by E.	1·729			
			wt. 2½ grs.	35 07·5	65	S. by E.	1·663			
			wt. 3 grs.	42 38·1	65	S. by E.	1·692			
			wt. 3½ grs.	52 14·9	65	S. by E.	1·680			
	−42 40	183 46	Def. N.	38 04·4	65	S.	1·700			
			Def. S.	35 21·7	65	S.	1·702			
			Mag. N.	31 38·8	65	S.	1·708	−·025	1·682	Very steady.
			Mag. N.S.	41 34·5	65	S.	1·717			
			Mag. S.	22 01·6	65	S.				

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Nov. 30.	−43° 33′	183° 10′	Def. N.	37° 47′·0	59°	S. ½ W.	1·717			
			Def. S.	35 15·2	59	S. ½ W.	1·709	−·024		Very steady.
			Mag. N.	31 33·3	59	S. ½ W.	1·716			
			Mag. N.S.	41 28·2	59	S. ½ W.	1·727			
			Mag. S.	21 58·1	59	S. ½ W.			1·707	
	−44 15	183 02	Def. N.	37 29·0	59	S. by W.	1·734			
			Def. S.	34 31·6	59	S. by W.	1·752	−·023		A cross swell, motion slight.
			Mag. N.	31 18·9	59	S. by W.	1·737			
			Mag. N.S.	41 10·5	59	S. by W.	1·747			
			Mag. S.	21 59·4	59	S. by W.				
Dec. 1.	−45 30	183 12	Def. N.	37 08·5	63	S.E. by E.	1·753			
			Def. S.	34 49·3	63	S.E. by E.	1·735	−·007		Ship pitching considerably, steering very steadily.
			Mag. N.	31 29·9	63	S.E. by E.	1·721			
			Mag. N.S.	41 29·2	63	S.E. by E.	1·725			
			Mag. S.	21 42·2	63	S.E. by E.			1·733	
	−45 48	183 25	Def. N.	37 11·4	63	S.E. ½ E.	1·750			
			Def. S.	34 52·1	63	S.E. ½ E.	1·732	−·010		A head sea, table unsteady, ship steering well.
			Mag. N.	31 06·0	63	S.E. ½ E.	1·753			
			Mag. N.S.	40 59·4	63	S.E. ½ E.	1·762			
			Mag. S.	21 43·6	63	S.E. ½ E.				
2.	−47 13	184 30	Def. N.	37 11·8	56	S.E. by E. ½ E.	1·750			
			Def. S.	34 31·8	56	S.E. by E. ½ E.	1·752	−·002		Head sea, ship pitching, steering steadily.
			Mag. N.	31 15·8	56	S.E. by E. ½ E.	1·741			
			Mag. N.S.	41 12·7	56	S.E. by E. ½ E.	1·744			
			Mag. S.	21 07·2	56	S.E. by E. ½ E.			1·753	
	−47 39	184 55	Def. N.	36 53·8	56	S.E. by E.	1·767			
			Def. S.	34 24·0	56	S.E. by E.	1·760	−·007		
			Mag. N.	30 55·2	56	S.E. by E.	1·768			
			Mag. N.S.	40 53·0	56	S.E. by E.	1·772			
			Mag. S.	21 09·8	56	S.E. by E.				
3.	−48 18	185 54	Def. N.	36 55·9	51	S.E. by E.	1·765			
			Def. S.	34 06·7	51	S.E. by E.	1·776			
			Mag. N.	30 44·1	51	S.E. by E.	1·782			
			Mag. N.S.	40 52·8	51	S.E. by E.	1·772			
			Mag. S.	21 15·0	51	S.E. by E.				
			wt. 1 gr.	12 01·0	51	S.E. by E.	1·844	−·007	1·772	Very steady.
			wt. 1½ gr.	18 51·1	51	S.E. by E.	1·784			
			wt. 2 grs.	25 50·7	51	S.E. by E.	1·777			
			wt. 2½ grs.	32 51·6	51	S.E. by E.	1·760			
			wt. 3 grs.	40 23·1	51	S.E. by E.	1·766			
			wt. 3½ grs.	48 41·0	51	S.E. by E.	1·765			
	−49 05	186 54	Def. N.	36 51·6	51	S.E. by E. ½ E.	1·769			
			Def. S.	34 06·3	51	S.E. by E. ½ E.	1·777			
			Mag. N.	30 46·1	51	S.E. by E. ½ E.	1·780			
			Mag. N.S.	40 45·8	51	S.E. by E. ½ E.	1·781			
			Mag. S.	21 11·2	51	S.E. by E. ½ E.				
			wt. 1 gr.	12 23·7	51	S.E. by E. ½ E.	1·790	−·005	1·772	Very steady.
			wt. 1½ gr.	18 37·4	51	S.E. by E. ½ E.	1·804			
			wt. 2 grs.	25 50·1	51	S.E. by E. ½ E.	1·778			
			wt. 2½ grs.	32 30·9	51	S.E. by E. ½ E.	1·777			
			wt. 3 grs.	40 32·8	51	S.E. by E. ½ E.	1·760			
			wt. 3½ grs.	48 59·5	51	S.E. by E. ½ E.	1·757			
4.	−49 24	187 23	Def. N.	36 41·8	54	E.	1·779	+·004		
			Def. N.	36 44·7	54	E. by S.	1·776			
			Def. S.	34 22·0	54	E. by S.	1·762			
			Mag. N.	30 48·7	54	E. by S.	1·776			
			Mag. N.S.	40 56·3	54	E. by S.	1·768	−·000	1·772	Swell from the northward, steady.

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Dec. 4.	—49° 24′	187° 23′	Mag. S.	21° 25·6	54°	E. by S.		·000	1·772	Swell from the northward.
			wt. 1 gr.	12 24·3	54	E. by S.	1·789			Steady.
			wt. 1½ gr.	18 55·0	54	E. by S.	1·778			
			wt. 2 grs.	25 46·4	54	E. by S.	1·782			
			wt. 2½ grs.	32 36·7	54	E. by S.	1·774			
			wt. 3 grs.	40 48·6	54	E. by S.	1·753			
			wt. 3½ grs.	48 56·7	54	E. by S.	1·759			
5.	—49 23	188 54	Def. N.	36 18·3	55	E. by S.	1·803			
			Def. S.	34 29·5	55	E. by S.	1·754			
			Mag. N.	30 46·1	55	E. by S.	1·780			
			Mag. N.S.	40 54·9	55	E. by S.	1·770			
			Mag. S.	21 34·1	55	E. by S.				
			wt. 1 gr.	12 35·7	55	E. by S.	1·762			
			wt. 1½ gr.	18 20·9	55	E. by S.	1·831			
			wt. 2 grs.	25 35·5	55	E. by S.	1·794			
			wt. 2½ grs.	32 51·2	55	E. by S.	1·762	·000	1·775	Very steady.
			wt. 3 grs.	40 31·3	55	E. by S.	1·762			
			wt. 3½ grs.	48 46·6	55	E. by S.	1·764			
	—49 38	189 44	Def. N.	36 34·4	55	E. by S.	1·787			
			Def. S.	34 28·8	55	E. by S.	1·755			
			Mag. N.	30 54·8	55	E. by S.	1·766			
			Mag. N.S.	41 01·8	55	E. by S.	1·759			
			Mag. S.	21 46·8	55	E. by S.				
6.	—49 50	190 46	Def. N.	36 37·1	51	E. by S.	1·784			
			Def. S.	34 02·5	51	E. by S.	1·781			
			Mag. N.	30 49·4	51	E. by S.	1·775			
			Mag. N.S.	41 04·2	51	E. by S.	1·756			
			Mag. S.	21 41·3	51	E. by S.				
			wt. 1 gr.	12 38·8	51	E. by S.	1·753	·000	1·766	Very steady.
			wt. 1½ gr.	18 49·6	51	E. by S.	1·785			
			wt. 2 grs.	25 40·4	51	E. by S.	1·788			
			wt. 2½ grs.	33 28·2	51	E. by S.	1·725			
			wt. 3 grs.	40 37·3	51	E. by S.	1·758			
			wt. 3½ grs.	49 09·5	51	E. by S.	1·753			
	—50 08	191 39	Def. N.	36 40·0	51	E. by S.	1·781			
			Def. S.	34 16·4	51	E. by S.	1·768			
			Mag. N.	30 51·3	51	E. by S.	1·774			
			Mag. N.S.	41 02·2	51	E. by S.	1·759	·000	1·771	Ship steady.
			Mag. S.	21 42·4	51	E. by S.				
			wt. 1 gr.	12 35·7	51	E. by S.	1·761			
			wt. 1½ gr.	18 50·0	51	E. by S.	1·785			
7.	—50 32	191 52	Def. N.	35 51·7	51	S.E. by E.	1·828			
			Def. S.	33 46·7	51	S.E. by E.	1·796			
			Mag. N.	30 48·4	51	S.E. by E.	1·778	—·007		
			Mag. N.S.	40 47·4	51	S.E. by E.	1·780			
			Mag. S.	21 27·7	51	S.E. by E.				
	—50 45	192 19	Def. N.	36 01·8	51	S.E. ½ E.	1·818			
			Def. S.	34 06·7	51	S.E. ½ E.	1·776			
			Mag. N.	30 40·7	51	S.E. ½ E.	1·785		1·777	Ship steady.
			Mag. N.S.	40 45·7	51	S.E. ½ E.	1·782			
			Mag. S.	21 32·3	51	S.E. ½ E.				
			wt. 1 gr.	12 43·0	51	S.E. ½ E.	1·743	—·008		
			wt. 1½ gr.	18 56·2	51	S.E. ½ E.	1·776			
			wt. 2 grs.	25 58·6	51	S.E. ½ E.	1·769			
			wt. 2½ grs.	32 37·7	51	S.E. ½ E.	1·772			
			wt. 3 grs.	40 35·6	51	S.E. ½ E.	1·759			
			wt. 3½ grs.	48 00·8	51	S.E. ½ E.	1·784			

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Dec. 8	−51° 37′	194° 00′	Def. N.	35° 49·9	49°	E. by S.	1·830			
			Def. S.	33 50·1	49	E. by S.	1·793			
			Mag. N.	30 42·2	49	E. by S.	1·784			
			Mag. N.S.	40 31·4	49	E. by S.	1·796			
			Mag. S.	21 29·1	49	E. by S.				
			wt. 1 gr.	12 35·5	49	E. by S.	1·760	·000	1·794	Ship steady.
			wt. 1½ gr.	18 34·6	49	E. by S.	1·806			
			wt. 2 grs.	25 16·9	49	E. by S.	1·813			
			wt. 2½ grs.	32 08·9	49	E. by S.	1·794			
			wt. 3 grs.	40 00·3	49	E. by S.	1·780			
			wt. 3½ grs.	48 01·8	49	E. by S.	1·782			
	−52 00	195 00	Def. N.	36 01·2	49	E. by S.	1·819			
			Def. S.	33 59·6	49	E. by S.	1·783			Strong breeze, table steady, steering wildly.
			Mag. N.	30 36·5	49	E. by S.	1·792			
			Mag. N.S.	40 38·6	49	E. by S.	1·786			
			Mag. S.	20 59·5	49	E. by S.				
9.	−52 14	197 49	Def. N.	35 53·6	45	E. by S.	1·826	·000	1·799	
			Def. S.	33 44·6	45	E. by S.	1·798			
			Mag. N.	30 21·9	45	E. by S.	1·812			
			Mag. N.S.	40 47·0	45	E. by S.	1·781			Ship unsteady, steering wild.
			Mag. S.	20 38·5	45	E. by S.				
10.	−53 01	202 16	Mag. N.S.	40 36·2	45	E. by S.	1·791			
11.	−52 51	203 56	Def. N.	36 14·8	46	E. ½ N.	1·805			
			Def. S.	33 54·6	46	E. ½ N.	1·788			
			Mag. N.	30 26·7	46	E. ½ N.	1·806			
			Mag. N.S.	40 30·9	46	E. ½ N.	1·798			
			Mag. S.	21 26·5	46	E. ½ N.				
			wt. 1 gr.	11 50·3	46	E. ½ N.	1·871	+·008		Violent motion, steering well, head sea, table pretty steady.
			wt. 1½ gr.	17 43·9	46	E. ½ N.	1·891			
			wt. 2 grs.	24 29·7	46	E. ½ N.	1·867			
			wt. 2½ grs.	31 19·3	46	E. ½ N.	1·837			
			wt. 3 grs.	39 46·3	46	E. ½ N.	1·788			
			wt. 3½ grs.	47 43·1	46	E. ½ N.	1·791		1·820	
12.	−52 53	205 07	Def. N.	36 41·3	45	E.S.E.	1·780			
			Def. S.	33 40·8	45	E.S.E.	1·802			
			Mag. N.	30 30·2	45	E.S.E.	1·801			
			Mag. N.S.	40 20·2	45	E.S.E.	1·813			
			Mag. S.	21 23·0	45	E.S.E.				
			wt. 1 gr.	12 30·8	45	E.S.E.	1·771	−·003		Head swell, little motion, steering well.
			wt. 1½ gr.	18 07·9	45	E.S.E.	1·851			
			wt. 2 grs.	24 38·0	45	E.S.E.	1·857			
			wt. 2½ grs.	31 44·7	45	E.S.E.	1·815			
			wt. 3 grs.	39 30·1	45	E.S.E.	1·798			
			wt. 3½ grs.	48 07·9	45	E.S.E.	1·779			
	−53 31	206 14	Def. N.	36 09·5	45	E.S.E.	1·811			
			Def. S.	33 22·8	45	E.S.E.	1·820			
			Mag. N.	30 11·3	45	E.S.E.	1·828			
			Mag. N.S.	39 57·5	45	E.S.E.	1·841			
			Mag. S.	21 07·1	45	E.S.E.				
			wt. 1 gr.	12 08·9	45	E.S.E.	1·823	−·003	1·834	A slight motion, steering very well.
			wt. 1½ gr.	18 00·7	45	E.S.E.	1·863			
			wt. 2 grs.	24 39·1	45	E.S.E.	1·856			
			wt. 2½ grs.	31 15·2	45	E.S.E.	1·840			
			wt. 3 grs.	38 03·7	45	E.S.E.	1·855			
			wt. 3½ grs.	47 41·3	45	E.S.E.	1·834			

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Dec. 13.	−54° 19′	208° 24′	Def. N.	36° 02′·0	51°	E.S.E.	1·818			
			Def. S.	33 17·8	51	E.S.E.	1·825			
			Mag. N.	30 23·2	51	E.S.E.	1·811			
			Mag. N.S.	40 28·8	51	E.S.E.	1·801			
			Mag. S.	20 27·6	51	E.S.E.				Table steady, steering badly.
	−54 53	209 24	Def. N.	36 03·0	51	E.S.E.	1·817	−·003		
			Def. S.	33 14·6	51	E.S.E.	1·828			
			Mag. N.	30 10·5	51	E.S.E.	1·829			
			Mag. N.S.	39 59·5	51	E.S.E.	1·837		1·814	
			Mag. S.	20 52·6	51	E.S.E.				
	−54 48	209 25	Def. N.	36 18·6	51	E.S.E.	1·802			Heavy sea, steering badly.
	−55 04	209 58	Def. N.	36 11·8	48	S.E. by s.	1·808			
			Def. S.	32 54·1	48	S.E. by s.	1·849			Ship much more steady, steering better.
			Mag. N.	30 18·1	48	S.E. by s.	1·818	−·015		
			Mag. N.S.	40 03·9	48	S.E. by s.	1·831			
			Mag. S.	20 54·4	48	S.E. by s.				
14.	−56 14	211 43	Def. N.	35 54·6	52	S.E. by s.	1·825			
			Def. S.	32 37·1	52	S.E. by s.	1·867			
			Mag. N.	29 56·6	52	S.E. by s.	1·849			
			Mag. N.S.	39 36·9	52	S.E. by s.	1·867			
			Mag. S.	20 21·6	52	S.E. by s.		−·015	1·836	Table steady, steering well.
			Def. N.	35 55·5	52	S.E. by s.	1·824			
			Def. S.	32 43·8	52	S.E. by s.	1·860			
			Mag. N.	29 59·3	52	S.E. by s.	1·845			
			Mag. N.S.	39 31·8	52	S.E. by s.	1·874			
			Mag. S.	20 24·4	52	S.E. by s.				
	−56 30	211 50	Def. N.	35 36·6	52	S.E. by s.	1·841			
			Def. S.	32 43·4	52	S.E. by s.	1·861			
			Mag. N.	29 59·9	52	S.E. by s.	1·844			
			Mag. N.S.	40 01·6	52	S.E. by s.	1·834			
			Mag. S.	20 33·4	52	S.E. by s.				
			wt. 1 gr.	11 46·1	52	S.E. by s.	1·884	−·015	1·841	Very steady.
			wt. 1½ gr.	18 10·6	52	S.E. by s.	1·848			
			wt. 2 grs.	24 02·0	52	S.E. by s.	1·902			
			wt. 2½ grs.	31 08·6	52	S.E. by s.	1·848			
			wt. 3 grs.	38 07·8	52	S.E. by s.	1·855			
			wt. 3½ grs.	46 00·9	52	S.E. by s.	1·846			
15.	−56 53	212 06	Def. N.	35 33·1	41	S.E. by s.	1·845			
			Def. S.	32 47·5	41	S.E. by s.	1·855			
			Mag. N.	29 57·1	41	S.E. by s.	1·848			
			Mag. N.S.	40 06·1	41	S.E. by s.	1·828			
			Mag. S.	20 33·2	41	S.E. by s.		−·015	1·843	Very steady.
	−57 16	212 17	Def. N.	35 28·4	41	S.E. by s.	1·850			
			Def. S.	32 21·9	41	S.E. by s.	1·882			
			Mag. N.	29 25·4	41	S.E. by s.	1·895			
			Mag. N.S.	39 39·1	41	S.E. by s.	1·865			
			Mag. S.	20 14·7	41	S.E. by s.				
16.	−57 44	212 59	Def. N.	35 13·8	42	S.S.E.	1·863			
			Def. S.	32 22·3	42	S.S.E.	1·882			
			Mag. N.	29 51·2	42	S.S.E.	1·857			
			Mag. N.S.	39 30·9	42	S.S.E.	1·876			
			Mag. S.	20 15·2	42	S.S.E.		−·019	1·863	Very steady.
			wt. 1 gr.	11 45·4	42	S.S.E.	1·882			
			wt. 1½ gr.	18 00·2	42	S.S.E.	1·860			
			wt. 2 grs.	23 38·6	42	S.S.E.	1·929			
			wt. 2½ grs.	30 04·6	42	S.S.E.	1·904			

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Dec. 16.	−58° 28′	213° 08′	Def. N.	34° 42′·2	42°	S.S.E.	1·895			
			Def. S.	32 09·3	42	S.S.E.	1·896			
			Mag. N.	29 32·0	42	S.S.E.	1·885			
			Mag. N.S.	39 29·4	42	S.S.E.	1·878			
			Mag. S.	20 16·5	42	S.S.E.				
			wt. 1 gr.	11 33·4	42	S.S.E.	1·915			
			wt. 1½ gr.	17 36·2	42	S.S.E.	1·904			
			wt. 2 grs.	23 48·0	42	S.S.E.	1·917	−·017	1·878	Very steady.
			wt. 2½ grs.	29 50·1	42	S.S.E.	1·918			
			wt. 3 grs.	36 40·9	42	S.S.E.	1·914			
			wt. 3½ grs.	44 52·1	42	S.S.E.	1·877			
	−58 44	213 11	Def. N.	35 11·8	42	S.S.E.	1·865			
			Def. S.	32 22·7	42	S.S.E.	1·882			
			Mag. N.	29 28·0	42	S.S.E.	1·891			
			Mag. N.S.	39 16·0	42	S.S.E.	1·896			
			Mag. S.	19 46·3	42	S.S.E.				
17.	−60 48	213 51	Def. N.	34 58·7	36	S.S.E.	1·878			
			Def. S.	31 59·8	36	S.S.E.	1·905			
			Mag. N.	29 19·8	36	S.S.E.	1·903			
			Mag. N.S.	39 06·6	36	S.S.E.	1·907			
			Mag. S.	19 45·9	36	S.S.E.				
			wt. 1 gr.	11 51·7	36	S.S.E.	1·863	−·016		
			wt. 1½ gr.	16 49·6	36	S.S.E.	1·987			
			wt. 2 grs.	23 56·7	36	S.S.E.	1·907			
			wt. 2½ grs.	29 43·5	36	S.S.E.	1·923			
			wt. 3 grs.	36 48·8	36	S.S.E.	1·906		1·892	Very slight motion, steering well.
			wt. 3½ grs.	44 22·1	36	S.S.E.	1·893			
	−61 37	213 54	Def. N.	34 28·6	34	S. ½ E.	1·908			
			Def. S.	31 43·6	34	S. ½ E.	1·922			
			Mag. N.	29 09·5	34	S. ½ E.	1·918	−·016		
			Mag. N.S.	39 10·2	34	S. ½ E.	1·903			
			Mag. S.	19 54·3	34	S. ½ E.				
18.	−62 34	212 34	Def. N.	34 27·6	32	S. by E.	1·909			
			Def. S.	31 38·4	32	S. by E.	1·928			
			Mag. N.	29 06·9	32	S. by E.	1·922			
			Mag. N.S.	38 39·3	32	S. by E.	1·945			
			Mag. S.	19 21·5	32	S. by E.				
			wt. 1 gr.	11 30·6	32	S. by E.	1·920	−·016	1·916	Very steady, sailing amongst loose ice.
			wt. 1½ gr.	16 59·2	32	S. by E.	1·968			
			wt. 2 grs.	23 55·7	32	S. by E.	1·905			
			wt. 2½ grs.	29 07·6	32	S. by E.	1·958			
			wt. 3 grs.	36 00·5	32	S. by E.	1·942			
			wt. 3½ grs.	43 45·9	32	S. by E.	1·920			
19.	−63 06	210 55	Def. N.	34 27·4	40	S.S.W.	1·910			
			Def. S.	31 50·7	40	S.S.W.	1·914			
			Mag. N.	29 08·0	40	S.S.W.	1·920			
			Mag. N.S.	38 52·6	40	S.S.W.	1·927			
			Mag. S.	19 37·4	40	S.S.W.		−·015	1·910	Very steady, running amongst loose ice.
20.	−63 36	208 20	Def. N.	34 20·3	34	S.S.W.	1·917			
			Def. S.	31 19·9	34	S.S.W.	1·946			
			Mag. N.	28 59·8	34	S.S.W.	1·932			
			Mag. N.S.	38 48·0	34	S.S.W.	1·933			
			Mag. S.	19 37·0	34	S.S.W.				
	−63 53	208 32	Def. N.	34 21·3	34	S.	1·916			
			Def. S.	31 23·0	34	S.	1·943	−·014		
			Mag. N.	28 47·5	34	S.	1·950			
			Mag. N.S.	38 39·1	34	S.	1·945			
			Mag. S.	19 21·6	34	S.			1·927	Very steady, running amongst loose ice.

Observations of the Magnetic Force. (Continued.)

1841.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Dec. 21.	−64° 11′	206° 35′	Def. N.	34° 01·3	34°	S.S.W.	1·936			
			Def. S.	31 15·8	34	S.S.W.	1·950			
			Mag. N.	28 54·2	34	S.S.W.	1·941	−·013	1·927	Very steady, running amongst loose ice.
			Mag. N.S.	38 44·7	34	S.S.W.	1·937			
			Mag. S.	19 15·2	34	S.S.W.				
	−64 51	206 19	wt. 1 gr.	11 10·3	35	S. ¾ W.	1·978			
			wt. 1½ gr.	17 10·4	35	S. ¾ W.	1·948			
			wt. 2 grs.	23 07·5	35	S. ¾ W.	1·968			
			wt. 2½ grs.	29 07·7	35	S. ¾ W.	1·959			
			wt. 3 grs.	35 52·4	35	S. ¾ W.	1·949	−·013	1·943	Very steady, steering amongst loose ice.
			wt. 3½ grs.	42 59·5	35	S. ¾ W.	1·947			
			Def. N.	34 05·5	35	S. ¾ W.	1·932			
			Def. S.	31 01·8	35	S. ¾ W.	1·965			
22.	−65 19	205 08	Def. N.	34 07·6	37	S. ½ W.	1·930			
			Def. S.	31 17·5	37	S. ½ W.	1·948			
			Mag. N.	28 50·9	37	S. ½ W.	1·945			
			Mag. N.S.	38 42·3	37	S. ½ W.	1·940			
			Mag. S.	19 29·9	37	S. ½ W.		−·013	1·931	Very steady, steering smongst loose ice.
	−65 34	205 00	Def. N.	33 59·5	37	S.	1·937			
			Def. S.	31 00·9	37	S.	1·966			
			Mag. N.	28 53·2	37	S.	1·942			
			Mag. N.S.	38 37·7	37	S.	1·946			
			Mag. S.	19 25·2	37	S.				
23.	−65 47	204 19	Def. N.	34 02·2	36	N.E.	1·935			Very steady, sailing amongst loose ice.
			Def. S.	31 23·8	36	N.E.	1·942			
			Mag. N.	28 42·6	36	N.E.	1·958	+·009		
			Mag. N.S.	38 44·3	36	N.E.	1·938			
			Mag. S.	19 44·9	36	N.E.			1·950	
24.	−65 54	204 08	Def. N.	34 15·9	42	N. by W.	1·921			Fast to a piece of ice.
			Def. S.	31 21·8	42	N. by W.	1·944			
			Mag. N.	28 51·3	42	N. by W.	1·945	+·011		
			Mag. N.S.	38 45·8	42	N. by W.	1·936			
			Mag. S.	19 29·0	42	N. by W.				
27.	−66 08	203 50	Def. N.	34 07·9	30	E.S.E.	1·929	−·004		
			Def. S.	30 57·8	30	E.S.E.	1·969		1·949	Working in a hole of water.
			Mag. N.	28 46·1	30	N.W. by N.	1·953	+·010		
			Mag. N.S.	38 45·3	30	N.W. by N.	1·937			
			Mag. S.	19 24·3	30	N.W. by N.				
28.	−66 10	202 54	Def. N.	33 56·0	30	W. by N.	1·941	+·003		
1842.										
Jan. 1.	−66 36	203 29	Def. N.	34 06·6	44	N.W. ½ W.	1·931			
			Def. S.	31 17·7	44	N.W. ½ W.	1·948			
			Mag. N.	28 46·6	44	N.W. ½ W.	1·951			
			Mag. N.S.	38 35·1	44	N.W. ½ W.	1·950			
			Mag. S.	19 28·8	44	N.W. ½ W.				
			wt. 1 gr.	11 20·8	44	N.W. ½ W.	1·950	+·009	1·961	Fast to a piece of ice, Erebus fifty yards N.E. (This result is not employed in the map.)
			wt. 1½ gr.	16 59·2	44	N.W. ½ W.	1·967			
			wt. 2 grs.	22 44·6	44	N.W. ½ W.	2·001			
			wt. 2½ grs.	29 21·5	44	N.W. ½ W.	1·947			
			wt. 3 grs.	35 50·3	44	N.W. ½ W.	1·952			
			wt. 3½ grs.	43 33·7	44	N.W. ½ W.	1·922			
7.	−66 20	203 39	Def. N.	34 13·5	33	N.W.	1·924			
			Def. S.	31 20·0	33	N.W.	1·946			
			Mag. N.	29 00·1	33	N.W.	1·932	+·009		
			Mag. N.S.	38 40·2	33	N.W.	1·943			
			Mag. S.	19 29·8	33	N.W.			1·944	Working in a hole of water.

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Jan. 8.	−66° 05′	204° 02′	Def. N.	34° 13′·8	35°	s. by w. ½ w.	1·923		1·944	Working in a hole of water.
			Def. S.	31 22·2	35	s. by w. ½ w.	1·944			
			Mag. N.	29 05·0	35	s. by w. ½ w.	1·925	−·011		
			Mag. N.S.	38 47·0	35	s. by w. ½ w.	1·935			
			Mag. S.	19 29·8	35	s. by w. ½ w.				
			wt. 1 gr.	11 14·4	35	N.	1·965			
			wt. 1½ gr.	17 07·6	35	N.	1·951			
			wt. 2 grs.	23 02·1	35	N.	1·982			
			wt. 2½ grs.	29 01·7	35	N.	1·963	+·012		
			wt. 3 grs.	35 44·9	35	N.	1·953			
			wt. 3½ grs.	43 14·8	35	N.	1·930			
9.	−66 01	204 04	Def. N.	33 45·1	35	s.w. ½ w.	1·952			
			Def. S.	31 12·7	35	s.w.	1·954			
			Mag. N.	28 59·9	35	s.w. by w.	1·932	−·007		
			Mag. N.S.	38 37·6	35	s.w. by w.	1·946			
			Mag. S.	19 16·0	35	s.w. by w.				
10.	−65 57	203 56	Def. N.	33 53·7	30	w. by s.	1·943			
			Def. S.	30 59·0	30	w. by s.	1·968	·000		
			Mag. N.	28 46·5	30	w. by s.	1·952			
			Mag. N.S.	38 36·3	30	E.	1·948	+·001		
			Mag. S.	19 16·3	30	E.				
			wt. 1 gr.	11 28·5	30	w. by s. ½ s.	1·923			
			wt. 1½ gr.	16 59·9	30	w. by s. ½ s.	1·965			
			wt. 2 grs.	22 55·0	30	w. by s. ½ s.	1·984		1·949	Working in a hole of water.
			wt. 2½ grs.	29 09·5	30	w. by s. ½ s.	1·955	−·003		
			wt. 3 grs.	35 46·6	30	w. by s. ½ s.	1·950			
			wt. 3½ grs.	42 54·2	30	w. by s. ½ s.	1·942			
			Def. N.	33 54·5	30	s.w. by w.	1·942			
			Def. S.	31 22·4	30	s.w. by w.	1·944			
			Mag. N.	28 46·7	30	s.w. by w.	1·952	−·006		
			Mag. N.S.	38 30·3	30	s.w. by w.	1·957			
			Mag. S.	19 19·4	30	s.w. by w.				
11.	−65 56	203 31	Def. N.	33 51·4	30	s.	1·946			
			Def. S.	31 05·2	30	s.	1·962			
			Mag. N.	28 45·2	30	s.	1·953	−·012		
			Mag. N.S.	38 40·3	30	s.	1·943			
			Mag. S.	19 21·0	30	s.				
13.	−66 06	202 10	Def. N.	34 14·7	33	N. ½ E.	1·922			
			Def. S.	31 23·1	33	N. ½ E.	1·943			
			Mag. N.	28 52·6	33	N. ½ E.	1·942	+·012	1·945	Working in a hole of water.
			Mag. N.S.	38 49·4	33	N. ½ E.	1·931			
			Mag. S.	19 36·1	33	N. ½ E.				
14.	−66 08	201 46	Def. N.	34 10·3	33	N.E. by E.	1·927			
			Def. S.	31 15·2	35	N.E. by E.	1·951			
			Mag. N.	28 49·5	35	N.E. by E.	1·947	+·008		
			Mag. N.S.	38 38·4	35	N.E. by E.	1·946			
			Mag. S.	19 27·1	35	N.E. by E.				
16.	−65 47	202 08	Def. N.	33 47·6	50		1·949			
			Def. S.	31 16·1	50		1·951			
			Mag. N.	28 52·7	50		1·942			
			Mag. N.S.	38 45·7	50		1·936			
			Mag. S.	19 44·8	50	Observed on ice.				
			wt. 1 gr.	11 25·4	50		1·940	.....	1·948	
			wt. 1½ gr.	17 08·3	50		1·957			
			wt. 2 grs.	23 02·9	50		1·979			
			wt. 2½ grs.	29 16·2	50		1·955			
			wt. 3 grs.	36 17·4	50		1·935			
			wt. 3½ grs.	43 23·5	50		1·932			

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
	° ′	° ′		° ′	°					
Jan. 26.	−67 12	203 12	Def. N.	33 14·0	35	E. by N.	1·984			
			Def. S.	31 00·0	35	E. by N.	1·967			
			Mag. N.	28 30·9	35	E. by N.	1·977	+·003		Fast to a piece of ice: Erebus N. by W. 20 fathoms*.
			Mag. N.S.	38 28·5	35	E. by N.	1·960		1·972*	
			Mag. N.S.	38 22·2	35	S.E. by S.	1·966	−·009		Fast to a piece of ice: Erebus N.E. by E.
			Mag. S.	19 15·7	35	S.E. by S.				
28.	−67 46	204 17	Def. N.	33 47·7	35	E. by N.	1·949	+·003		
			Def. S.	31 00·7	35	N.	1·966	+·012		
			Def. N.	33 47·5	35	N. by E.	1·949	+·011		
			Def. N.	33 43·8	35	N.N.E.	1·954			
			Mag. N.	28 45·1	35	N.N.E.	1·955	+·010	1·960	A swell from W.S.W., table steady.
			Mag. N.S.	38 29·8	35	N.N.E.	1·957			
			Mag. S.	19 21·1	35	N.N.E.				
			Def. N.	33 45·2	35	S. ¾ W.	1·952			
			Def. S.	30 52·2	35	S. ¾ W.	1·975			
			Mag. N.	28 39·0	35	S. ¾ W.	1·965	−·012		
			Mag. N.S.	38 22·4	35	S. ¾ W.	1·968			
			Mag. S.	19 16·9	35	S. ¾ W.				
28.	−67 46	204 17	wt. 1 gr.	10 53·5	35	N.	2·028	+·012		
			wt. 1½ gr.	16 57·2	35	N.	1·972			
			wt. 2 grs.	23 09·2	35	N. by W. ¾ W.	1·966			
			wt. 2½ grs.	29 14·4	35	N. by W. ¾ W.	1·951	+·011	1·965	
			wt. 3 grs.	35 37·6	35	N. by W. ¾ W.	1·959			Table steady.
			wt. 3½ grs.	42 53·4	35	N. by W. ¾ W.	1·944			
29.	−67 24	204 05	Def. N.	33 42·1	31	S. by W.	1·956			
			Def. S.	30 58·3	31	S. by W.	1·969	−·012		
			Mag. N.	28 49·8	31	S. by W.	1·947			
			Mag. N.S.	38 41·5	31	S. by W.	1·941			
31.	−67 12	202 24	Def. N.	33 51·2	32	S.S.W.	1·946			
			Def. S.	30 50·5	32	S.S.W.	1·976	−·011		
			Mag. N.	28 38·1	32	S.S.W.	1·966			
			Mag. N.S.	38 30·3	32	S.S.W.	1·957		1·946	Strong breeze, table steady.
			Mag. S.	19 21·8	32	S.S.W.				
			Def. N.	33 52·1	32	S.W.	1·945	−·007		
			Def. N.	33 52·3	32	S.W. by S.	1·945	−·008		
Feb. 1.	−67 12	201 34	Def. N.	34 30·6	32	W. by S.	1·906	−·001		
			Def. N.	34 04·4	32	E.	1·933	+·001		
	−67 16		Def. N.	33 56·0	32	S.S.W.	1·941			
			Def. S.	31 03·0	32	S.S.W.	1·964			
			Mag. N.	28 46·3	32	S.S.W.	1·951	−·011	1·935	Table very steady.
			Mag. N.S.	38 31·8	32	S.S.W.	1·954			
			Mag. S.	19 21·1	32	S.S.W.				
			Def. N.	34 07·1	32	N. ¾ W.	1·930	+·011		
			Def. N.	33 51·1	32	S.W.	1·946	−·007		
2.	−67 56	199 48	Def. N.	33 33·9	31	S. by W.	1·964			
			Def. S.	31 00·5	31	S. by W.	1·966	−·011		
			Mag. N.	28 51·5	31	S. by W.	1·944			
			Mag. N.S.	38 23·3	31	S. by W.	1·967			
			Mag. S.	19 15·5	31	S. by W.			1·955	Cross sea ship unsteady.
3.	−68 21	200 06	Def. N.	33 45·4	31	S.S.W.	1·952			
			Def. S.	30 51·4	31	S.S.W.	1·976	−·011		
			Mag. N.	28 22·2	31	S.S.W.	1·990			
			Mag. N.S.	38 21·2	31	S.S.W.	1·970			
			Mag. S.	19 13·8	31	S.S.W.				

* This result has not been employed in the map.

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Feb. 4.	−68° 45′	199° 41′	Def. N.	33° 38·7	30°	s.	1·959			
			Def. S.	30 43·2	30	s.	1·984			
			Mag. N.	28 32·2	30	s.	1·975			
			Mag. N.S.	38 15·0	30	s.	1·977	−·011		
			Mag. S.	19 15·9	30	s.				
			wt. 1 gr.	11 08·5	30	s.	1·984			
			wt. 1½ gr.	16 55·4	30	s. ½ E.	1·974	−·011		
			wt. 2 grs.	22 31·5	30	s.	2·015			
			wt. 2½ grs.	29 00·9	30	s.	1·963	−·011	1·961	Table steady.
			wt. 3 grs.	35 06·1	30	s.	1·983			
			wt. 3½ grs.	42 35·6	30	s. by E.	1·952			
			Def. N.	33 38·8	30	s. by E.	1·959	−·011		
			Def. S.	31 04·3	30	s. by E.	1·963			
	−68 49	199 26	Def. N.	33 59·1	30	N.N.W.	1·938	+·010		
5.	−68 52	198 24	Def. N.	33 46·1	32	s.w.	1·952			
			Def. S.	30 46·1	32	s.w.	1·981			
			Mag. N.	28 35·2	32	s.w.	1·970	−·006		
			Mag. N.S.	38 24·0	32	s.w.	1·965			
			Mag. S.	19 18·6	32	s.w.			1·966	Fresh breeze, table steady.
			wt. 1 gr.	11 08·8	32	s.w. ½ w.	1·984			
			wt. 1½ gr.	16 59·2	32	s.w. ½ w.	1·966			
			wt. 2 grs.	22 30·9	32	s.w. ½ w.	2·016			
			wt. 2½ grs.	28 49·9	32	s.w. ½ w.	1·974	−·005		
			wt. 3 grs.	35 33·8	32	s.w. ½ w.	1·961			
			wt. 3½ grs.	42 40·2	32	s.w. ½ w.	1·949			
6.	−69 55	192 17	Def. N.	33 46·5	34	s. by w.	1·952			A swell from the N.N.W., unsteady.
			Def. S.	30 44·6	34	s. by w.	1·982			
			Mag. N.	28 21·7	34	s. by w.	1·990	−·010		
			Mag. N.S.	38 08·0	34	s. by w.	1·987			Steering well.
			Mag. S.	18 54·1	34	s. by w.				
			Def. N.	33 44·5	34	s.	1·953	−·010	1·965	
7.	−70 05	191 03	Def. N.	33 53·9	30	s.s.w.	1·943			
			Def. S.	30 47·4	30	s.s.w.	1·980			Swell from W.N.W., steering badly, very unsteady.
			Mag. N.	28 38·8	30	s.s.w.	1·965	−·009		
			Mag. N.S.	37 43·3	30	s.s.w.	2·021			
			Mag. S.	17 52·3	30	s.s.w.				
8.	−70 08	186 39	Def. N.	33 48·7	31	s.w.	1·948			
			Def. N.	33 49·3	31	s.w. by w.	1·947			Steering wildly, unsteady.
			Def. S.	30 38·2	31	s.w. by w.	1·989	−·004		
			Mag. N.	28 30·9	31	s.w. by w.	1·977			
			Mag. N.S.	37 43·8	31	s.w. by w.	2·020			
			Mag. S.	17 38·4	31	s.w. by w.				
	−70 17	186 04	wt. 1 gr.	11 15·2	31	s.	1·961		1·976	
			wt. 1½ gr.	16 52·1	31	s.	1·979			
			wt. 2 grs.	22 37·0	31	s.	2·007			
			wt. 2½ grs.	28 35·7	31	s.	1·989			Table steady.
			wt. 3 grs.	34 59·8	31	s.	1·988			
			wt. 3½ grs.	41 52·3	31	s.	1·980	−·009		
			Def. N.	33 38·4	31	s.	1·960			
			Def. S.	30 34·2	31	s.	1·995			
			Mag. N.	28 26·8	31	s.	1·983			
			Mag. N.S.	37 33·2	31	s.	2·034			
			Mag. S.	17 17·7	31	s.				

Observations of the Magnetic Force. (Continued.

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Feb. 9.	−70° 32′	185° 38′	Def. N.	33° 37′·4	30°	S.	1·961			
			Def. S.	30 50·6	30	S.	1·976	−·009		
			Mag. N.S.	37 30·0	30	S.	2·039			
			Def. N.	33 43·4	30	S.E. by S.	1·955	−·006		Head swell, very unsteady.
			Def. S.	30 29·7	30	S. ½ E.	1·997	−·009	1·983	
			Mag. N.S.	37 29·7	30	S. ½ E.	2·039			
10.	−69 56	184 43	Def. N.	33 37·7	32	W. by S.	1·960			
			Def. S.	30 47·2	32	W. by S.	1·980	·000		
			Mag. N.	28 34·0	32	W. by S.	1·972			Head swell, not steady.
			Mag. N.S.	37 56·0	32	W. by S.	2·004			
			Mag. S.	17 58·6	32	W. by S.				
11.	−69 51	183 02	Def. N.	33 37·5	32	W.S.W.	1·960			Strong breeze, swell from the west, table not steady.
			Def. S.	30 30·3	32	W.S.W.	1·997	−·001		
			Mag. N.	28 18·6	32	W.S.W.	1·994			
			Mag. N.S.	37 44·4	32	W.S.W.	2·029			
			Mag. S.	18 08·6	32	W.S.W.			1·988	
12.	−71 03	180 56	Def. N.	33 38·3	33	S.E. by S.	1·960			
			Def. S.	30 37·8	33	S.E. by S.	1·989	−·006		Cross sea, table very unsteady.
			Mag. N.	28 18·2	33	S.E. by S.	1·995			
			Mag. N.S.	37 51·2	33	S.E. by S.	2·011			
			Mag. S.	18 05·3	33	S.E. by S.				
13.	−72 07	181 50	Def. N.	33 22·3	31	S.E. by S.	1·976			
			Def. S.	30 42·3	31	S.E. by S.	1·985	−·006		Swell from N.W., steering wildly, table unsteady.
			Mag. N.	28 04·6	31	S.E. by S.	2·017			
			Mag. N.S.	37 27·2	31	S.E. by S.	2·044			
			Mag. S.	17 43·3	31	S.E. by S.			2·001	
14.	−72 55	181 33	Def. N.	33 14·6	30	S.E. by E.	1·983			
			Def. S.	30 22·9	30	S.E. by E.	2·004	−·004		N.W. swell, ship unsteady.
			Mag. N.	28 12·1	30	S.E. by E.	2·006			
			Mag. N.S.	37 31·9	30	S.E. by E.	2·036			
			Mag. S.	17 56·7	30	S.E. by E.				
16.	−74 51	174 02	Def. N.	33 12·5	28	S.S.E.	1·986			
			Def. S.	30 26·1	28	S.S.E.	2·001	−·006		Table steady.
			Mag. N.	27 52·3	28	S.S.E.	2·036			
			Mag. N.S.	37 19·9	28	S.S.E.	2·052			
			Mag. S.	17 45·9	28	S.S.E.			·2008	
	−75 09	173 16	wt. 1 gr.	11 09·7	28	E. ½ S.	1·976			
			wt. 1½ gr.	16 40·5	28	E. ½ S.	2·001			
			wt. 2 grs.	21 41·0	28	E. ½ S.	2·090	·000		
			wt. 2½ grs.	28 13·7	28	E. ½ S.	2·013			N.W. swell, motion slight.
			wt. 3 grs.	34 53·1	28	E. ½ S.	1·995			
			wt. 3½ grs.	42 16·6	28	E. ½ S.	1·964			
			Def. N.	33 04·9	28	E. by S.	1·990			
			Def. S.	30 23·8	28	E. by S.	2·003	·000		
			Mag. N.S.	37 27·9	28	E. by S.	2.042			
17.	−76 06	174 57	Def. N.	33 25·4	32	E. by N. ½ N.	1·973		·2006	
			Def. S.	30 37·3	32	E. by N. ½ N.	1·990	+·002		Steering wildly, table unsteady.
			Mag. N.	28 16·2	32	E. by N. ½ N.	1·999			
			Mag. N.S.	37 28·6	32	E. by N. ½ N.	2·041			
			Mag. S.	17 38·4	32	E. by N. ½ N.				
18.	−77 02	181 37	Def. N.	33 12·4	27	E.N.E	1·987			
			Def. S.	30 36·1	27	E.N.E.	1·991	+·004	2·007	Cross sea, table unsteady.
			Mag. N.	28 17·4	27	E.N.E.	1·998			
			Mag. N.S.	37 31·7	27	E.N.E.	2·036			
			Mag. S.	17 49·0	27	E.N.E.				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Feb. 19.	−76° 48′	184° 46′	Def. N.	33° 16′·1	25°	N. by E.	1·983			
			Def. S.	30 30·3	25	N. by E.	1·997	+·006	2·009	Head sea, ship unsteady.
			Mag. N.	28 14·8	25	N. by E.	2·002			
			Mag. N.S.	37 34·7	25	N. by E.	2·031			
			Mag. S.	17 30·6	25	N. by E.				
20.	−76 20	191 26	Def. N.	33 10·8	28	N.E.	1·988			
			Def. S.	30 30·9	28	N.E.	1·996	+·005	2·024	Head sea, ship unsteady.
			Mag. N.	27 55·8	28	N.E.	2·030			
			Mag. N.S.	37 12·8	28	N.E.	2·062			
			Mag. S.	17 14·3	28	N.E.				
22.	−76 24	184 54	Def. N.	33 09·1	30	S.E. by S.	1·990			
			Def. S.	30 25·3	30	S.E. by S.	2·002	−·005	2·004	Strong wind, head sea, unsteady.
			Mag. N.	28 11·1	30	S.E. by S.	2·007			
			Mag. N.S.	37 30·2	30	S.E. by S.	2·039			
			Mag. S.	17 41·0	30	S.E. by S.				
	−77 13	193 52	Def. N.	33 12·9	30	E. by S.	1·986			
			Def. S.	30 39·5	30	E. by S.	1·987			
			Mag. N.	28 21·0	30	E. by S.	1·991			
			Mag. N.S.	37 31·9	30	E. by S.	2·036			
			Mag. S.	17 13·0	30	E. by S.				
			wt. 1 gr.	10 55·0	30	E. by S.	2·021	·000	2·011	Light swell, motion gentle.
			wt. 1½ gr.	16 28·5	30	E. by S.	2·026			
			wt. 2 grs.	22 23·3	30	E. by S.	2·028			
			wt. 2½ grs.	28 07·5	30	E. by S.	2·020			
			wt. 3 grs.	34 16·6	30	E. by S.	2·025			
			wt. 3½ grs.	41 32·7	30	E. by S.	1·992			
23.	−77 47	197 25	Def. N.	33 28·8	29	N.E. by E.	1·969	+·005	2·001	Table steady.
			Def. S.	30 36·2	29	N.E. by E.	1·991			
			Mag. N.	28 08·2	29	E.N.E.	2·011	+·004		
			Mag. N.S.	37 45·3	29	E.N.E.	2·018			
			Mag. S.	17 17·8	29	E.N.E.				
24.	−77 14	199 29	Def. N.	33 10·3	30	S.W. by S.	1·989			
			Def. S.	30 41·2	30	S.W. by S.	1·980			
			Mag. N.	28 22·9	30	S.W. by S.	1·989			
			Mag. N.S.	37 30·5	30	S.W. by S.	2·038			
			Mag. S.	17 25·3	30	S.W. by S.				
			wt. 1 gr.	11 02·2	30	S.W. by S.	2·000	−·005	1·992	Fresh breeze, swell from N.E., table steady.
			wt. 1½ gr.	16 31·1	30	S.W. by S.	2·020			
			wt. 2 grs.	22 33·5	30	S.W. by S.	2·010			
			wt. 2½ grs.	28 40·4	30	S.W. by S.	1·983			
			wt. 3 grs.	34 58·0	30	S.W. by S.	1·989			
			wt. 3½ grs.	42 08·1	30	S.W. by S.	1·970			
25.	−75 20	194 36	Def. N.	33 05·2	29	W.	1·994			
			Def. S.	30 34·4	29	W.	1·993	+·001	2·003	Fresh breeze, swell from N.E., table steady.
			Mag. N.	28 14·8	29	W.	2·000			
			Mag. N.S.	37 43·8	29	W.	2·020			
			Mag. S.	17 38·2	29	W.				
26.	−73 10	189 21	Def. N.	33 17·7	29	N.W. by W.	1·980			
			Def. S.	30 34·9	29	N.W. by W.	1·992	+·005	2·000	Strong breeze, motion great.
			Mag. N.	28 06·6	29	N.W. by W.	2·012			
			Mag. N.S.	38 01·7	29	N.W. by W.	1·995			
			Mag. S.	17 13·8	29	N.W. by W.				
27.	−72 03	187 40	Def. N.	33 22·8	26	S.W.	1·976			
			Def. S.	30 36·3	26	S.W.	1·991	−·005		
			Mag. N.	28 11·4	26	S.W.	2·007			
			Mag. N.S.	37 39·4	26	W. by N. ½ N.	2·025	+·002		
			Mag. S.	17 28·8	26	W. by N. ½ N.			1·999	Easterly swell, slight motion.

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Feb. 27.	−72° 03′	187° 40′	wt. 1 gr.	11° 01′·0	26°	S.W. ½ W.	2·002	−·005	1·999	Easterly swell, slight motion.
			wt. 1½ gr.	16 26·3	26	S.W. ½ W.	2·029			
			wt. 2 grs.	22 13·8	26	S.W. ½ W.	2·040			
			wt. 2½ grs.	28 25·7	26	S.W. ½ W.	1·998			
			wt. 3 grs.	34 35·3	26	S.W. ½ W.	2·009			
			wt. 3½ grs.	42 33·7	26	S.W. ½ W.	1·953			
	−71 43	187 15	wt. 1 gr.	11 04·8	26	W. by N. ½ N.	1·990	+·002	1·999	Easterly swell, slight motion.
			wt. 1½ gr.	16 01·3	26	W. by N. ½ N.	2·081			
			wt. 2 grs.	22 29·5	26	W. by N. ½ N.	2·016			
			wt. 2½ grs.	28 37·6	26	W. by N. ½ N.	1·986			
			wt. 3 grs.	34 56·6	26	W. by N. ½ N.	1·990			
			wt. 3½ grs.	42 04·9	26	W. by N. ½ N.	1·971			
28.	−71 20	184 30	Def. N.	33 44·8	25	W. by S.	1·952	·000		
			Def. S.	30 47·1	25	W. by S.	1·980			
			Mag. N.	28 22·8	25	W. by S.	1·988			
			Mag. N.S.	37 39·1	25	W. by S.	2·025			
			Mag. S.	17 44·3	25	W. by S.				
Mar. 1.	−69 54	179 55	Def. N.	33 24·5	32	W.N.W.	1·974	+·005	1·999	Easterly swell, slight motion.
			Def. S.	30 38·5	32	W.N.W.	1·989			
			Mag. N.	28 17·3	32	W.N.W.	1·998			
			Mag. N.S.	37 47·1	32	W.N.W.	2·015			
			Mag. S.	17 43·2	32	W.N.W.				
2.	−68 09	183 10	Def. N.	33 34·6	32	N.N.E.	1·963	+·007	1·981	Swell from eastward.
			Def. S.	31 01·2	32	N.N.E.	1·966			
			Mag. N.	28 30·9	32	N.N.E.	1·977			
			Mag. N.S.	38 05·3	32	N.N.E.	1·990			
			Mag. S.	18 05·9	32	N.N.E.				
3.	−67 35	185 18	Def. N.	33 30·0	31	N.E. by E.	1·968	+·006		
			Def. S.	31 15·6	31	N.E. by E.	1·951			
			Mag. N.	28 29·3	31	N.E. by E.	1·979			
			Mag. N.S.	37 54·8	31	N.E. by E.	2·005			
			Mag. S.	18 00·1	31	N.E. by E.				
			wt. 1 gr.	11 07·4	31	N.E. by E.	1·986		1·978	Cross sea, ship unsteady.
			wt. 1½ gr.	17 00·0	31	N.E. ½ E.	1·965	+·006		
			wt. 2 grs.	22 48·2	31	N.E. ½ E.	1·993			
			wt. 2½ grs.	28 54·6	31	N.E. ½ E.	1·970			
			wt. 3 grs.	35 30·5	31	N.E. ½ E.	1·965			
			wt. 3½ grs.	42 54·1	31	N.E. ½ E.	1·942			
4.	−67 40	187 40	Def. N.	33 43·9	33	N. by W.	1·954	+·011		
			Def. S.	31 04·0	33	N. by W.	1·963			
			Mag. N.	28 23·5	33	N. by W.	1·988			
			Mag. N.S.	37 47·2	33	N. by W.	2·015			
			Mag. S.	17 59·9	33	N. by W.			1·981	Strong gale, heavy sea, ship unsteady.
5.	−67 09	188 02	Def. N.	33 43·6	35	N.	1·954	+·012		
			Def. S.	31 47·7	35	N.	1·917			
			Mag. N.	28 36·4	35	N.	1·968			
			Mag. N.S.	37 57·1	35	N.	2·003			
			Mag. S.	17 50·3	35	N.				
6.	−65 28	191 24	Def. N.	33 56·8	33	N. by E.	1·940	+·012		Heavy sea from W.S.W., ship very unsteady.
			Def. S.	31 20·9	33	N. by E.	1·945			
			Mag. N.	28 44·3	33	N. by E.	1·956			
			Mag. N.S.	38 07·4	33	N. by E.	1·988			
			Mag. S.	18 29·3	33	N. by E.				
	−64 49	192 21	wt. 1 gr.	11 29·7	33	N. by E. ½ E.	1·920	+·012	1·955	Swell from the S.S.W., table steady.
			wt. 1½ gr.	17 20·6	33	N. by E. ½ E.	1·928			
			wt. 2 grs.	23 10·9	33	N. by E. ½ E.	1·963			

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Mar. 6.	−64° 49′	192° 21′	wt. 2½ grs.	29° 34′·9	33°	N. by E. ½ E.	1·930	+·012	1·955	Swell from the S.S.W., table steady.
			wt. 3 grs.	36 02·8	33	N. by E. ½ E.	1·940			
			wt. 3½ grs.	43 37·5	33	N. by E. ½ E.	1·917			
7.	−63 30	194 15	Def. N.	34 42·3	33	N. by E.	1·895			
			Def. S.	31 50·8	33	N. by E.	1·914	+·012	1·942	Table steady.
			Mag. N.	29 04·3	33	N. by E.	1·926			
			Mag. N.S.	38 11·2	33	N. by E.	1·983			
			Mag. S.	18 24·5	33	N. by E.				
8.	−62 17	195 55	Def. N.	34 47·8	35	N. by E.	1·889			
			Def. S.	32 05·4	35	N. by E.	1·900			
			Mag. N.	29 00·5	35	N. by E.	1·931			
			Mag. N.S.	38 35·2	35	N. by E.	1·950			
			Mag. S.	18 46·6	35	N. by E.				
			wt. 1 gr.	11 47·0	35	N. by E.	1·875	+·014		Table steady.
			wt. 1½ gr.	18 01·9	35	N. by E.	1·857			
			wt. 2 grs.	23 47·3	35	N. by E.	1·916			
			wt. 2½ grs.	30 03·9	35	N. by E.	1·902			
			wt. 3 grs.	37 04·3	35	N. by E.	1·894		1·916	
			wt. 3½ grs.	45 00·2	35	N. by E.	1·870			
9.	−61 06	198 08	Def. N.	34 50·2	35	N.E. ½ N.	1·887			
			Def. S.	32 03·8	35	N.E. ½ N.	1·901	+·013		Sea getting up, unsteady.
			Mag. N.	29 15·0	35	N.E. ½ N.	1·910			
			Mag. N.S.	38 35·4	35	N.E. ½ N.	1·950			
			Mag. S.	18 55·7	35	N.E. ½ N.				
10.	−60 19	203 42	Def. N.	34 45·6	34	E.N.E.	1·891			
			Def. S.	32 05·7	34	E.N.E.	1·899	+·010	1·920	Ship unsteady.
			Mag. N.	29 15·1	34	E.N.E.	1·910			
			Mag. N.S.	38 40·9	34	E.N.E.	1·942			
			Mag. S.	19 00·8	34	E.N.E.				
11.	−60 15	208 06	Def. N.	35 04·8	35	E. by N.	1·872			Strong gale, heavy sea, ship very unsteady.
			Def. S.	31 58·7	35	E. by N.	1·906			
			Mag. N.	29 04·3	35	E. by N.	1·926			
			Mag. N.S.	38 46·5	35	E. by N.	1·935			
			Mag. S.	18 53·1	35	E. by N.		+·007	1·907	
12.	−60 16	211 45	Def. N.	35 04·2	35	E. by N.	1·873			Heavy swell from S.W., unsteady.
			Def. S.	32 08·0	35	E. by N.	1·897			
			Mag. N.	29 25·5	35	E. by N.	1·894			
			Mag. N.S.	39 14·9	35	E. by N.	1·897			
			Mag. S.	18 53·3	35	E. by N.				
13.	−59 53	216 28	Def. N.	35 00·2	36	N.E. ½ E.	1·877			
			Def. S.	32 11·9	36	N.E. ½ E.	1·893	+·015	1·910	Heavy swell, steering badly.
			Mag. N.	29 23·2	36	N.E. ½ E.	1·898			
			Mag. N.S.	39 02·3	36	N.E. ½ E.	1·914			
			Mag. S.	18 59·1	36	N.E. ½ E.				
14.	−59 22	218 14	Def. N.	35 07·5	37	N.E. ½ E.	1·870			
			Def. S.	32 32·6	37	N.E. ½ E.	1·871	+·015	1·900	Heavy swell, very unsteady, steering badly.
			Mag. N.	29 36·2	37	N.E. ½ E.	1·879			
			Mag. N.S.	38 56·5	37	N.E. ½ E.	1·922			
			Mag. S.	19 00·9	37	N.E. ½ E.				
15.	−58 49	221 25	Def. N.	35 14·8	37	E.N.E.	1·862			
			Def. S.	31 38·8	37	E.N.E.	1·927	+·011	1·913	Heavy swell, steering badly.
			Mag. N.	29 10·9	37	E.N.E.	1·917			
			Mag. N.S.	39 11·3	37	E.N.E.	1·902			
			Mag. S.	19 05·6	37	E.N.E.				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Mar. 16.	−59° 01′	227° 43′	Def. N.	34° 39·9	39°	E.	1·897			
			Def. S.	32 14·2	39	E.	1·891			
			Mag. N.	29 30·9	39	E.	1·887	+·003	1·897	Heavy swell, steering badly.
			Mag. N.S.	39 10·7	39	E.	1·903			
			Mag. S.	18 51·8	39	E.				
18.	−60 05	235 56	Def. N.	35 07·2	38	E. by s.	1·870			
			Def. S.	32 36·0	38	E. by s.	1·868			
			Mag. N.	29 27·6	38	E. by s.	1·892	·000	1·884	Heavy sea from S.W. by W., ship unsteady.
			Mag. N.S.	39 08·7	38	E. by s.	1·904			
			Mag. S.	18 50·6	38	E. by s.				
	−60 17	236 38	Def. N.	35 02·5	38	E.	1·875			
			Def. S.	32 29·4	38	E.	1·875			
			Mag. N.	29 25·4	38	E.	1·896	+·003	1·892	The ship more steady.
			Mag. N.S.	39 04·2	38	E.	1·911			
			Mag. S.	18 45·3	38	E.				
	−60 24	237 29	Def. N.	35 05·5	38	E. by N.	1·872			
			Def. S.	32 07·2	38	E. by N.	1·898			
			Mag. N.	29 06·3	38	E. by N.	1·923	+·007	1·907	Ship steady.
			Mag. N.S.	39 05·9	38	E. by N.	1·909			
			Mag. S.	18 23·6	38	E. by N.				
21.	−59 05	247 27	Def. N.	35 50·2	38	E. by N.	1·830			
			Def. S.	32 49·7	38	E. by N.	1·853			
			Mag. N.	29 27·6	38	E. by N.	1·892	+·007	1·875	Cross sea, motion gentle.
			Mag. N.S.	39 13·5	38	E. by N.	1·898			
			Mag. S.	19 10·0	38	E. by N.				
22.	−58 26	251 42	Def. N.	35 29·5	38	E. by N.	1·848			
			Def. S.	32 41·7	38	E. by N.	1·862			
			Mag. N.	29 27·9	38	E. by N.	1·891	+·007	1·885	Cross sea, ship unsteady.
			Mag. N.S.	39 05·7	38	E. by N.	1·909			
			Mag. S.	19 23·5	38	E. by N.				
23.	−58 33	254 45	wt. 1 gr.	12 12·4	33	E. ½ N.	1·812			
			wt. 1½ gr.	18 20·0	33	E. ½ N.	1·828			
			wt. 2 grs.	25 22·7	33	E. ½ N.	1·803			
			wt. 2½ grs.	31 29·0	33	E. ½ N.	1·825			
			wt. 3 grs.	39 04·8	33	E. ½ N.	1·812			
			wt. 3½ grs.	47 40·6	33	E. ½ N.	1·780	+·006	1·824	Little motion.
			Def. N.	36 13·8	33	E. ½ N.	1·806			
			Def. S.	33 24·9	33	E. ½ N.	1·818			
			Mag. N.	29 55·5	33	E. ½ N.	1·850			
			Mag. N.S.	39 49·9	33	E. ½ N.	1·851			
			Mag. S.	19 52·7	33	E. ½ N.				
24.	−58 40	257 32	Def. N.	36 09·9	35	E. by N.	1·810			
			Def. S.	33 27·9	35	E. by N.	1·815			
			Mag. N.	29 47·9	35	E. by N.	1·862			Little motion.
			Mag. N.S.	39 36·0	35	E. by N.	1·869			
			Mag. S.	19 56·5	35	E. by N.		+·010	1·832	
	−58 53	258 55	wt. 1 gr.	12 30·1	35	E. by N.	1·770			
			wt. 1½ gr.	18 17·1	35	E. by N.	1·837			
			wt. 2 grs.	25 22·4	35	E. by N.	1·803			Little motion; overcast and damp.
			wt. 2½ grs.	31 46·5	35	E. by N.	1·810			
26.	−58 59	267 50	Def. N.	36 48·2	45	E. by N. ½ N.	1·773			
			Def. S.	34 31·2	45	E. by N. ½ N.	1·753			
			Mag. N.	30 53·2	45	E. by N. ½ N.	1·771	+·012	1·783	Motion gentle.
			Mag. N.S.	40 39·9	45	E. by N. ½ N.	1·786			
			Mag. S.	20 37·6	45	E. by N. ½ N.				

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Mar. 27.	−59° 01′	272° 06′	Def. N.	37° 29′·4	36°	E.N.E.	1·734			
			Def. S.	35 37·2	36	E.N.E.	1·687			
			Mag. N.	31 21·2	36	E.N.E.	1·734	+·013	1·747	Ship unsteady.
			Mag. N.S.	40 47·4	36	E.N.E.	1·780			
			Mag. S.	20 48·3	36	E.N.E.				
28.	−58 24	276 18	Def. N.	38 14·0	39	N.E. by E.	1·690			
			Def. S.	35 38·0	39	N.E. by E.	1·686			
			Mag. N.	31 57·2	39	N.E. by E.	1·684	+·016	1·722	Swell from S.W., slight motion.
			Mag. N.S.	40 59·0	39	N.E. by E.	1·763			
			Mag. S.	20 51·8	39	N.E. by E.				
29.	−58 25	279 44	wt. 1 gr.	13 14·6	45	N.E. by E.	1·676			
			wt. 1½ gr.	20 00·5	45	N.E. by E.	1·684			Slight motion.
			wt. 2 grs.	28 08·5	45	N.E. by E.	1·642			
			wt. 2½ grs.	36 37·1	45	N.E. by E.	1·601			Needle very unsteady (omitted in the mean).
			Def. N.	38 49·8	45	N.E. by E.	1·656	+·017		
			Def. S.	36 09·1	45	N.E. by E.	1·658			
			Mag. N.	32 21·1	45	N.E. by E.	1·651			
			Mag. N.S.	41 45·0	45	N.E. by E.	1·705		1·672	Slight motion.
			Mag. S.	21 53·0	45	N.E. by E.				
30.	−58 31	281 33	Def. N.	38 25·5	40	E.N.E.	1·680			
			Def. S.	36 04·1	40	E.N.E.	1·661			
			Mag. N.	32 15·8	40	E.N.E.	1·658	+·015		
			Mag. N.S.	41 37·5	40	E.N.E.	1·714			
			Mag. S.	21 26·3	40	E.N.E.				
31.	−58 36	285 33	Def. N.	39 35·3	44	N.E.	1·611			
			Def. S.	36 46·6	44	N.E.	1·619			
			Mag. N.	32 48·3	44	N.E.	1·613	+·021	1·648	Slight motion.
			Mag. N.S.	42 15·6	44	N.E.	1·664			
			Mag. S.	22 13·4	44	N.E.				
Apr. 1.	−57 21	289 36	Def. N.	40 12·8	47	N.E. by N.	1·573			
			Def. S.	36 33·8	47	N.E. by N.	1·632			Strong breeze, ship unsteady, steering wild.
			Mag. N.	33 28·9	47	N.E. by N.	1·554	+·024		
			Mag. N.S.	42 50·4	47	N.E. by N.	1·622			
			Mag. S.	22 29·8	47	N.E. by N.			1·592	
2.	−57 26	291 32	Def. N.	40 13·1	44	S.E.	1·573			Heavy sea, ship unsteady.
			Def. S.	37 44·6	44	S.E.	1·561			
			Mag. N.	33 23·9	44	S.E.	1·562	−·017		
			Mag. N.S.	42 47·3	44	S.E.	1·627			
			Mag. S.	23 07·7	44	S.E.				
3.	−56 37	294 34	Def. N.	41 28·4	44	N.E.	1·505			
			Def. S.	38 40·8	44	N.E.	1·506			
			Mag. N.	33 47·9	44	N.E.	1·527			
			Mag. N.S.	44 02·5	44	N.E.	1·523			
			Mag. S.	24 06·6	44	N.E.		+·022	1·495	Heavy sea, ship unsteady.
4.	−54 48	297 21	Def. N.	42 33·1	44	N.E.	1·443			
			Def. S.	40 06·6	44	N.E.	1·428			
			Mag. N.	35 00·8	44	N.E.	1·420			
			Mag. N.S.	45 01·4	44	N.E.	1·440			
			Mag. S.	25 06·5	44	N.E.				
5.	−52 40	299 52	Def. N.	44 47·8	44	N.N.E.	1·325			
			Def. S.	42 29·0	44	N.N.E.	1·307			
			Mag. N.	36 03·2	44	N.N.E.	1·326			
			Mag. N.S.	46 17·6	44	N.N.E.	1·326			
			Mag. S.	25 40·2	44	N.N.E.				
			wt. 1 gr.	17 23·4	44	N.N.E.	1·284			
			wt. 1½ gr.	26 11·2	44	N.N.E.	1·304	+·025	1·355	Ship steady.

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
Apr. 5.	−52° 40′	299° 52′	wt. 2 grs.	34° 54′·7	44°	N.N.E.	1·351	+·025	1·355	Ship steady.
			wt. 2½ grs.	45 13·0	44	N.N.E.	1·344			
			wt. 3 grs.	54 16·9	44	N.N.E.	1·408			
	−52 28	301 42	Def. N.	44 40·6	44	N.N.E.	1·327			
			Def. S.	42 04·5	44	N.N.E.	1·326			
			Mag. N.	36 12·5	44	N.N.E.	1·313	+·025		Ship steady.
			Mag. N.S.	46 43·3	44	N.N.E.	1·290			
			Mag. S.	25 58·0	44	N.N.E.			1·340	
6.	−51 42	301 36	Def. N.	44 52·9	44	N.N.W. ½ W.	1·319			
			Def. S.	42 26·1	44	N.N.W. ½ W.	1·308			
			Mag. N.	36 14·5	44	N.N.W. ½ W.	1·309	+·024		Slight motion.
			Mag. N.S.	46 16·5	44	N.N.W. ½ W.	1·332			
			Mag. S.	26 08·0	44	N.N.W. ½ W.				
9.	Falkland Islands.		Def. N.	44 21·2	44	W. ½ N.	1·346	+·009	1·346	Single anchor in Port Louis, Berkeley Sound.
			Def. S.	42 02·4	44	W. ½ N.	1·328			
10.			Def. N.	44 58·5	43		1·314			
	−51 32	301 53	Def. S.	41 52·8	43		1·335			
			Mag. N.	35 57·0	43		1·336			
			Mag. N.S.	46 13·9	43		1·335			
			Mag. S.	25 37·0*	43					
			wt. 1 gr.	16 56·5	43		1·316			
			wt. 1½ gr.	25 36·6	43		1·331			
			wt. 2 grs.	34 47·2	43		1·356			
			wt. 2½ grs.	45 34·1	43		1·336			
July 25.			wt. 3 grs.	57 39·1	43		1·353			
			Def. N.	44 27·0	43		1·340			
			Def. S.	42 00·4	43	Observed	1·330			
			Mag. N.	36 00·0	43	on shore.	1·331			
			Mag. N.S.	46 13·2	43		1·336			
			Mag. S.	25 42·8	43					
			wt. 1 gr.	16 51·2	43		1·323			
			wt. 1½ gr.	25 34·3	43		1·333			
			wt. 2 grs.	34 47·8	43		1·355			
			wt. 2½ grs.	45 29·7	43		1·338			
			wt. 3 grs.	57 48·7†	43		1·350			
Aug. 15.			Def. N.	44 29·0	38		1·339			
			Def. S.	41 58·0	38		1·332			
			Mag. N.	36 00·9	38		1·330			
			Mag. N.S.	46 14·8	38		1·333			At the Magnetic Station.

Mean of all the results obtained with weights at Port Louis 1·336.

* Observed on shore; face west.

		Intensity.
wt. 1 gr.	16° 14′·1	1·316
wt. 1½ gr.	24 36·9	1·338
wt. 2 grs.	33 44·9	1·342
wt. 2½ grs.	44 31·3	1·334
wt. 3 grs.	58 17·8	1·333

† Observed on shore; face west.

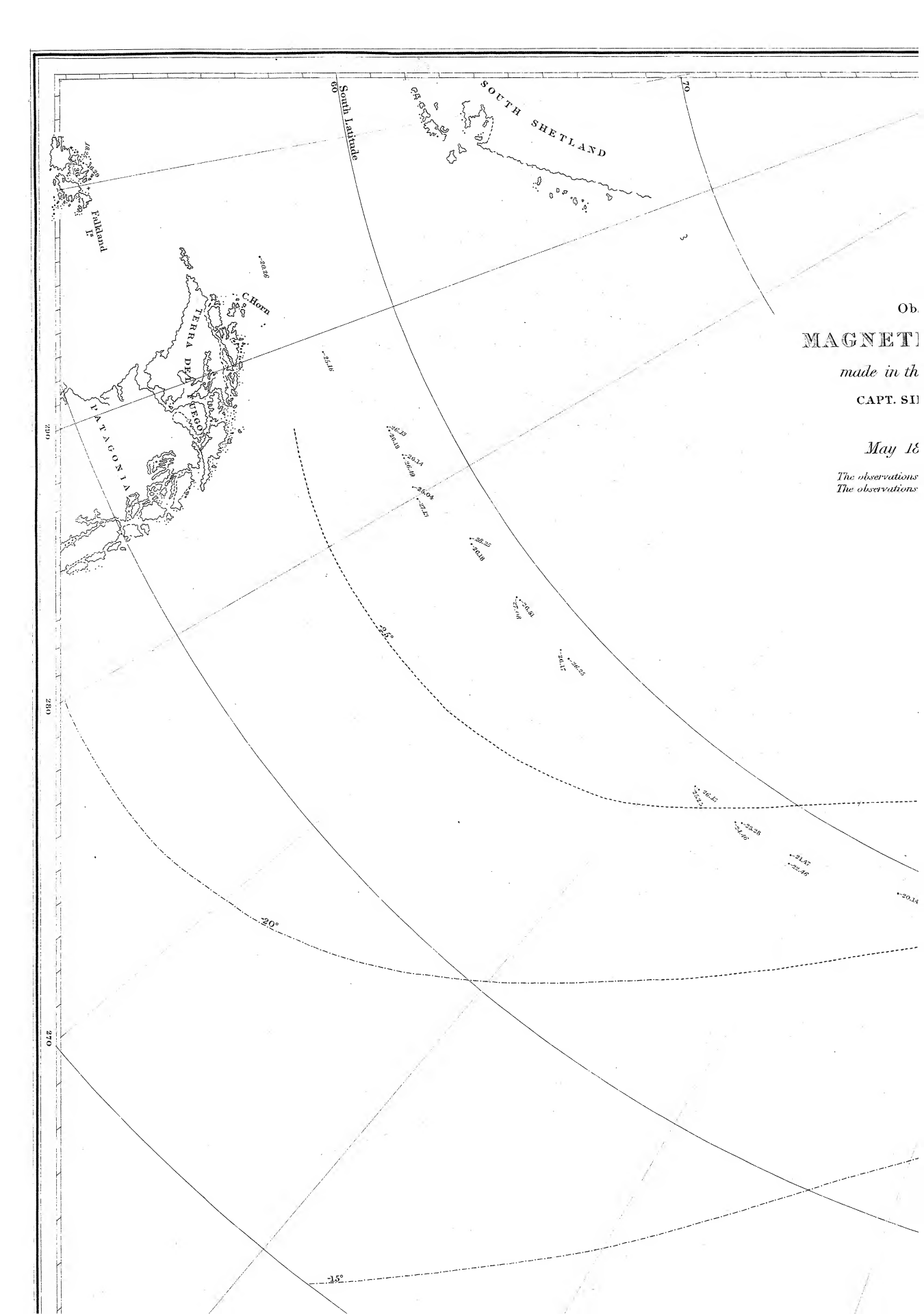
wt. 1 gr.	16° 26′·1	1·301
wt. 1½ gr.	24 27·9	1·345
wt. 2 grs.	33 49·5	1·339
wt. 2½ grs.	44 17·1	1·339
wt. 3 grs.	58 19·5	1·333

Observations of the Magnetic Force. (Continued.)

1842.	Lat.	Long.	Method employed.	Angle of deflection. Face east.	Temperature.	Ship's head.	Intensity.	Correction for ship's attraction.	Corrected Intensity.	Remarks.
	° ′	° ′		° ′	°					
Aug. 15.			Mag. S.	25 52·1*	38	Observed on shore.			Mean of all the results obtained with weights at Port Louis 1·336.	At the Magnetic Station.
			wt. 1 gr.	17 00·4	38		1·311			
			wt. 1½ gr.	25 37·3	38		1·331			
			wt. 2 grs.	34 24·4	38		1·369			
			wt. 2½ grs.	45 20·1	38		1·341			
			wt. 3 grs.	57 43·6	38		1·352			
18.			Def. N.	44 27·0	38		1·340			
			Def. S.	41 59·6	38		1·330			
			Mag. N.	35 59·3	38		1·332			
			Mag. N.S.	46 12·2	38		1·338			
			Mag. S.	25 43·8	38					
Aug. 15.	At anchor in Berkeley Sound.	To obtain corrections for the ship's attraction.	Def. N.	44 59·4	40	E. ½ S.	1·313	+·007	1·320	
			Def. N.	44 32·3	40	E.	1·336	+·009	1·345	
			Def. N.	44 10·0	40	E.S.E.	1·355	−·003	1·352	
			Def. N.	43 52·8	40	S.E.	1·370	−·014	1·356	
			Def. N.	43 55·3	40	S.S.E.	1·368	−·023	1·345	
			Def. N.	43 52·3	40	S.	1·370	−·024	1·346	
			Def. N.	43 57·8	40	S.S.W.	1·366	−·023	1·343	
			Def. N.	44 05·9	40	S.W.	1·359	−·014	1·345	
			Def. N.	44 22·3	40	W.S.W.	1·345	−·003	1·342	1·342
			Def. N.	44 47·5	40	W.	1·324	+·009	1·333	
			Def. N.	45 06·1	40	W.N.W.	1·308	+·017	1·325	
			Def. N.	45 01·7	40	N.W.	1·312	+·023	1·335	
			Def. N.	44 59·7	40	N.N.W.	1·313	+·025	1·338	
			Def. N.	44 52·2	40	N.	1·320	+·026	1·346	
			Def. N.	44 57·2	40	N.N.E.	1·315	+·025	1·340	
			Def. N.	44 59·0	40	N.E.	1·314	+·023	1·337	
			Def. N.	44 32·5	40	E.N.E.	1·336	+·017	1·353	

* Observed on shore; face west.

	° ′	Intensity.
wt. 1 gr.	16 15·4	1·315
wt. 1½ gr.	24 30·1	1·344
wt. 2 grs.	33 57·8	1·335
wt. 2½ grs.	44 32·3	1·333
wt. 3 grs.	57 35·7	1·344



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CAPT. SI

May 18

The observations
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Observations of the

GNETIC DECLINATION

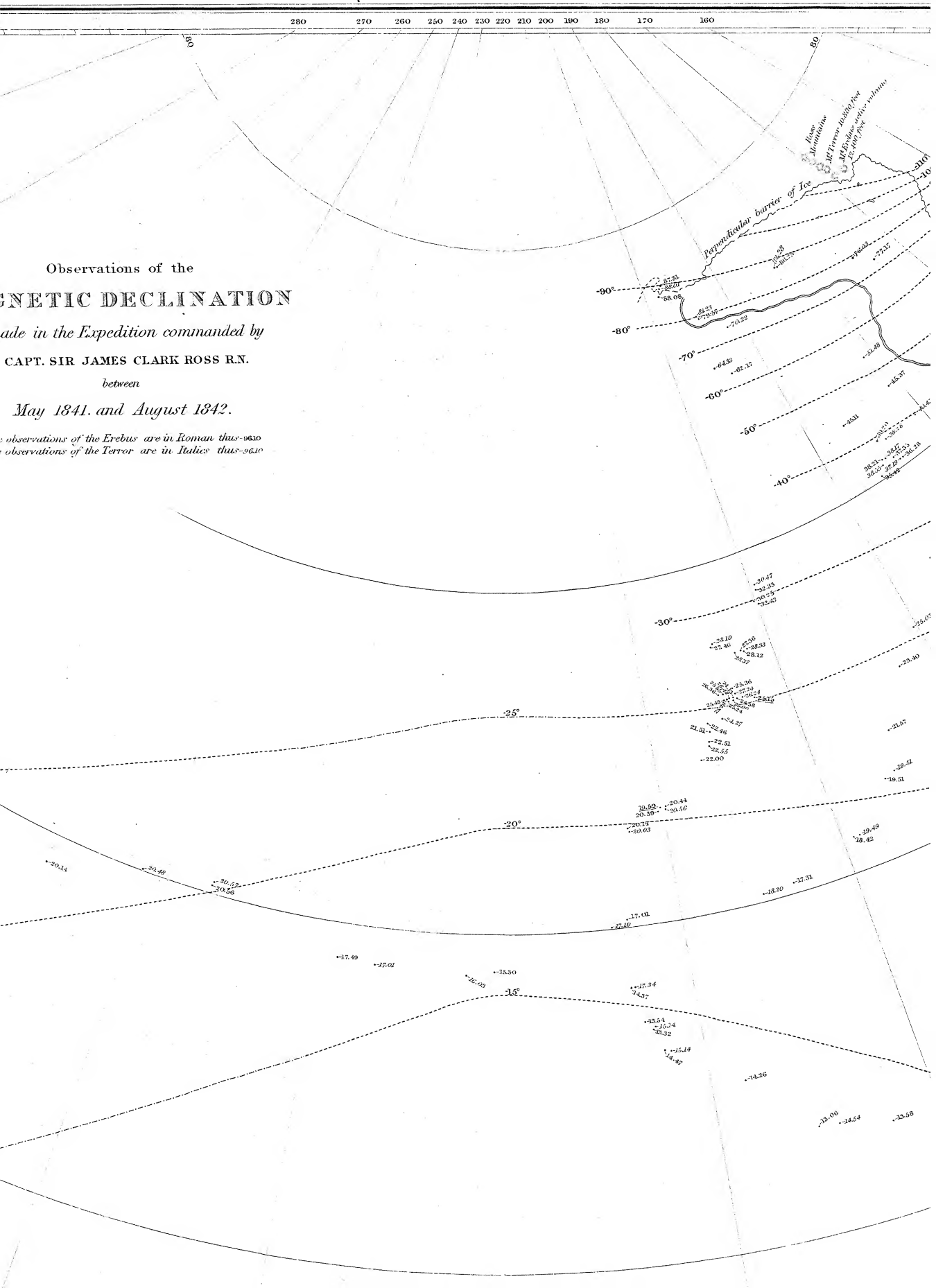
ade in the Expedition commanded by

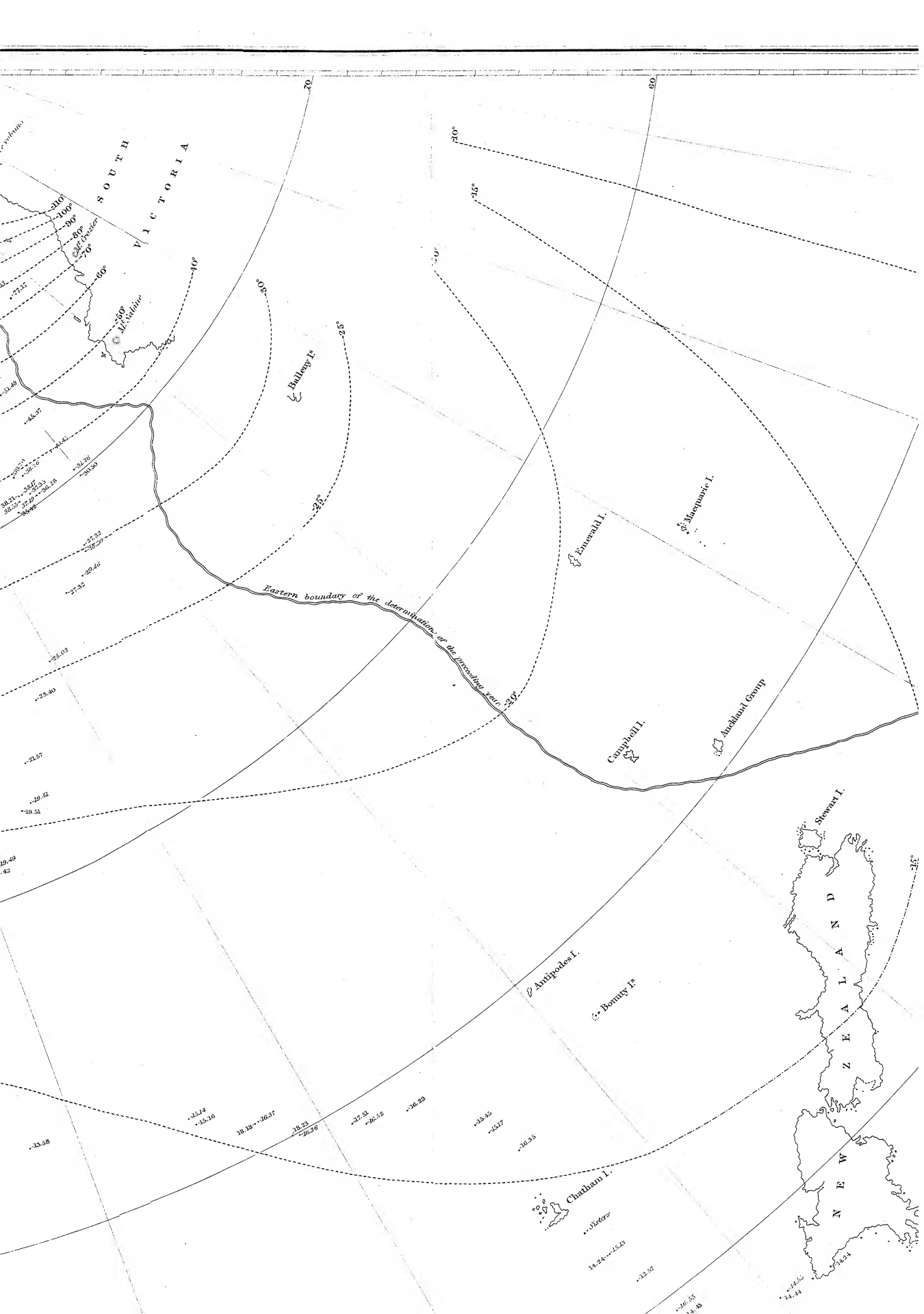
CAPT. SIR JAMES CLARK ROSS R.N.

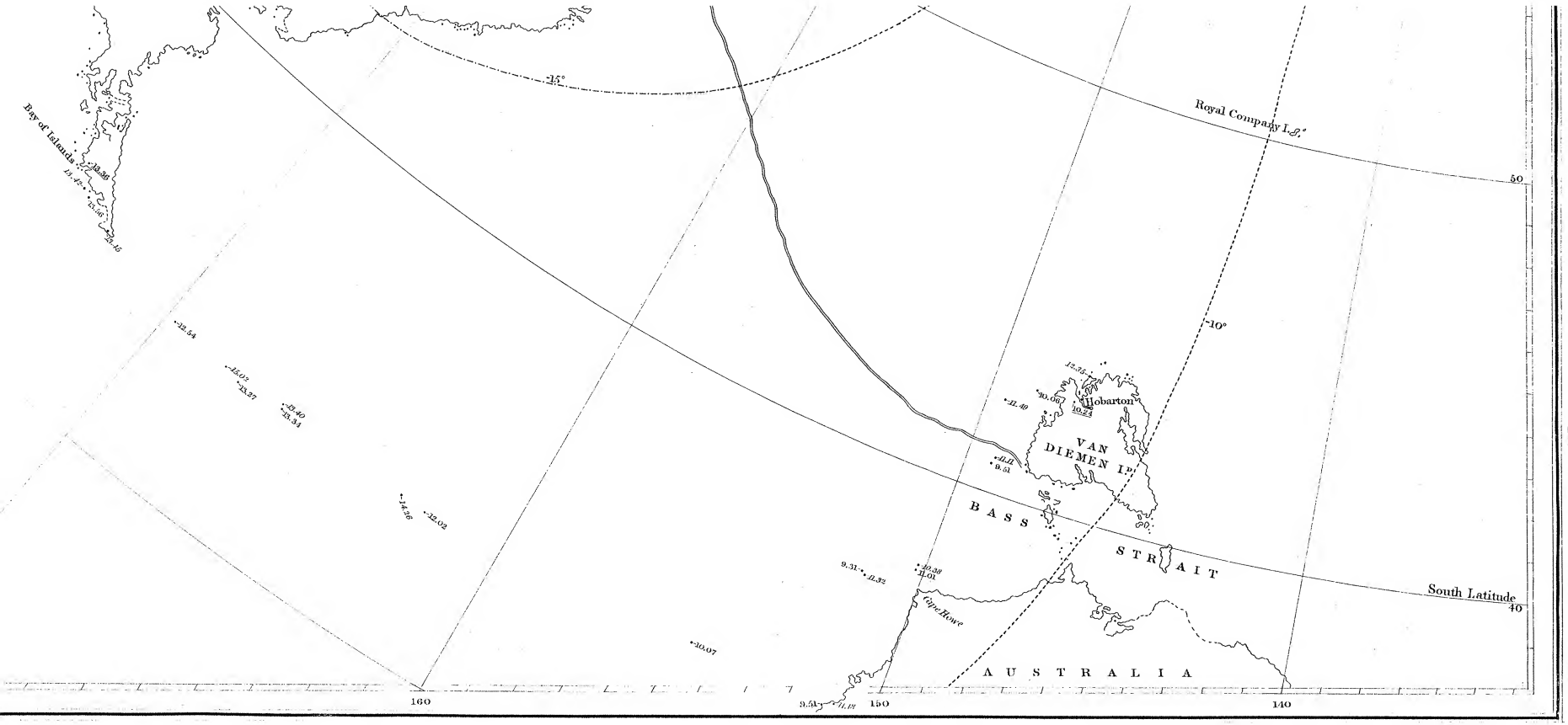
between

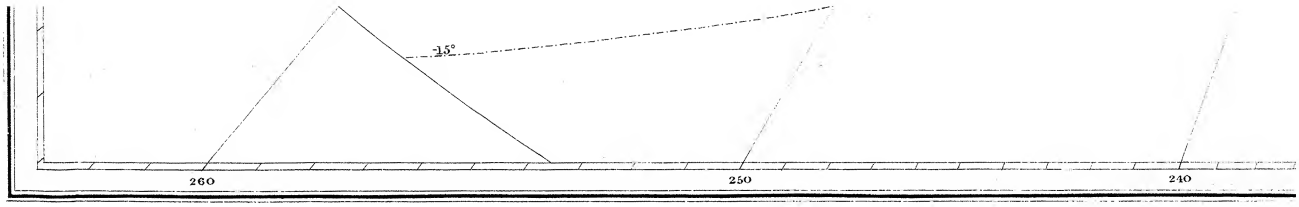
May 1841. and August 1842.

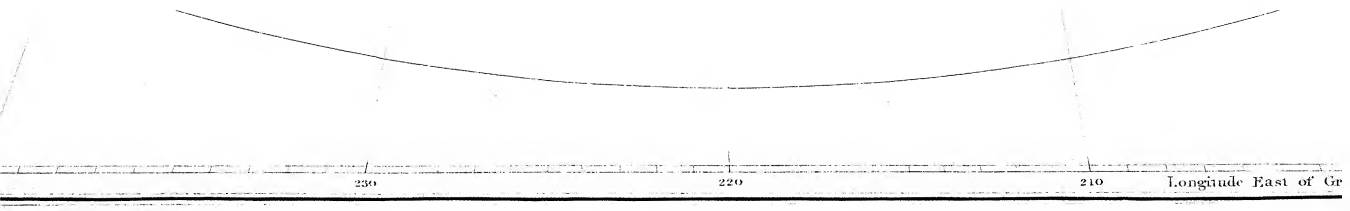
observations of the Erebus are in Roman thus-96.30
observations of the Terror are in Italics thus-96.10




SOUTH VICTORIA
Balleny Is
Mt Sabine
Eastern boundary of the determination of the preceding year
Emerald I.
Macquarie I.
Campbell I.
Auckland Group
Antipodes I.
Bounty Is
Chatham I.
Stewart I.
NEW ZEALAND


Bay of Islands
15°
Royal Company I.s
50
10°
Hobarton
VAN DIEMEN I.s
BASS
STRAIT
South Latitude
40
Cape Howe
AUSTRALIA
160
150
140


15°
260
250
240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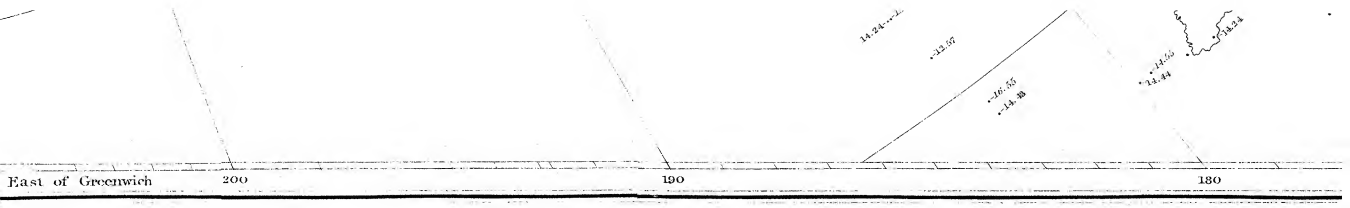
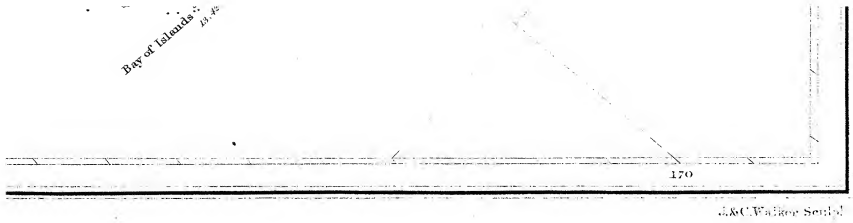
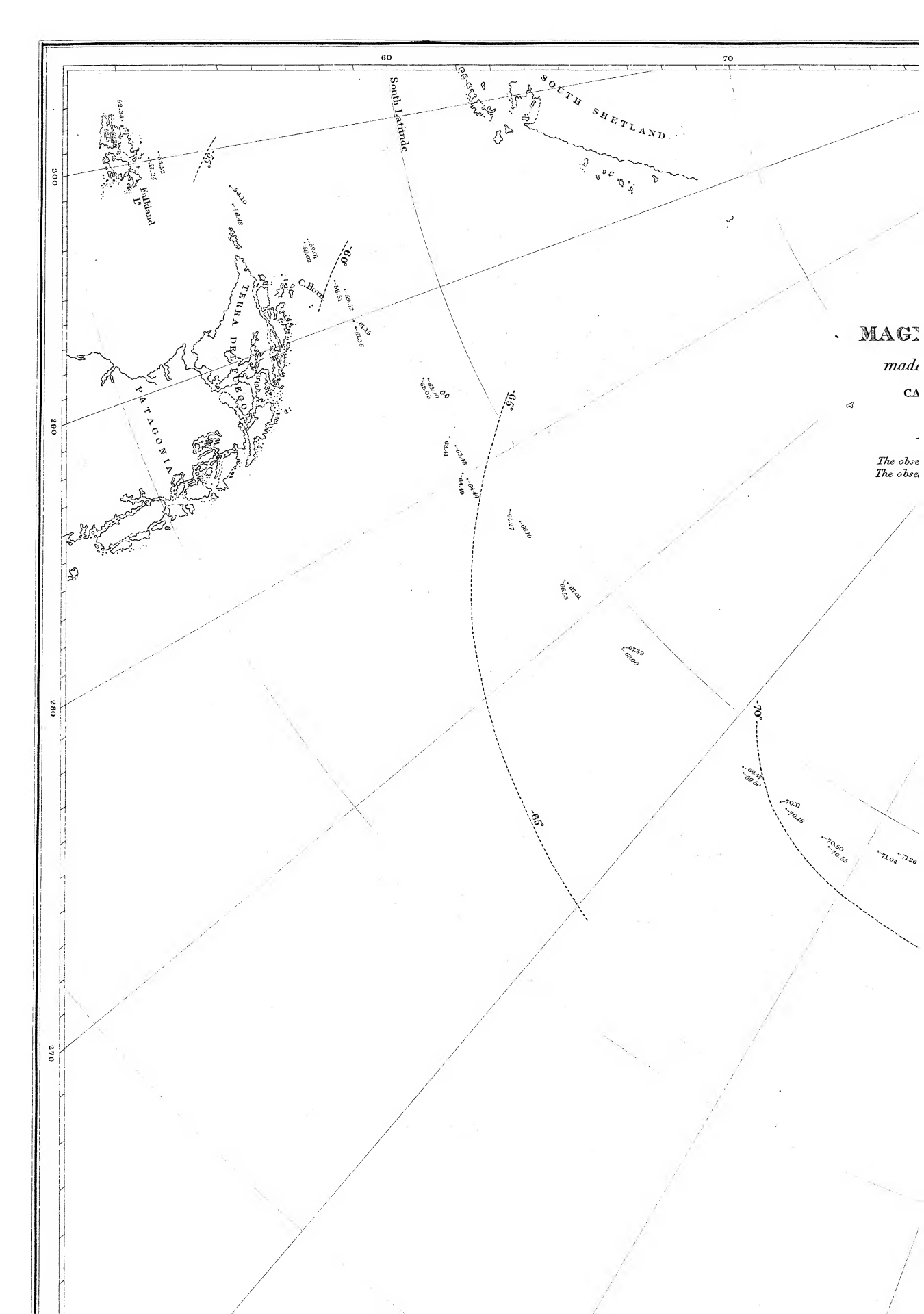
220
210
Longitude East of Gr


14.24
13.57
16.55
14.48
14.55
14.44
14.24
East of Greenwich
200
190
180


Bay of Islands
170
J.&C.Walker Sculpt


60
70
South Latitude
SOUTH SHETLAND
300
290
280
270
-55°
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Falkland Is.
C. Horn
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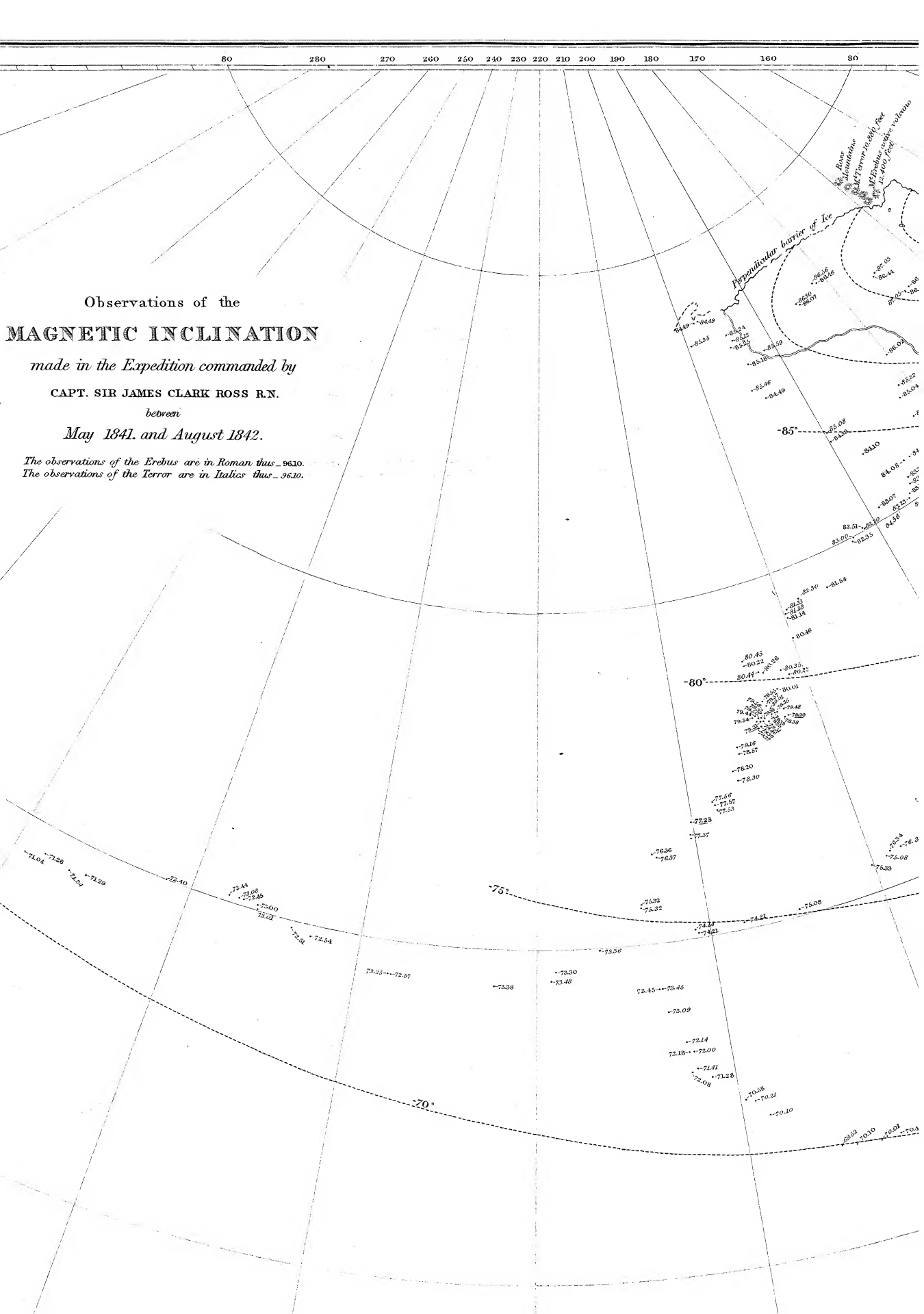
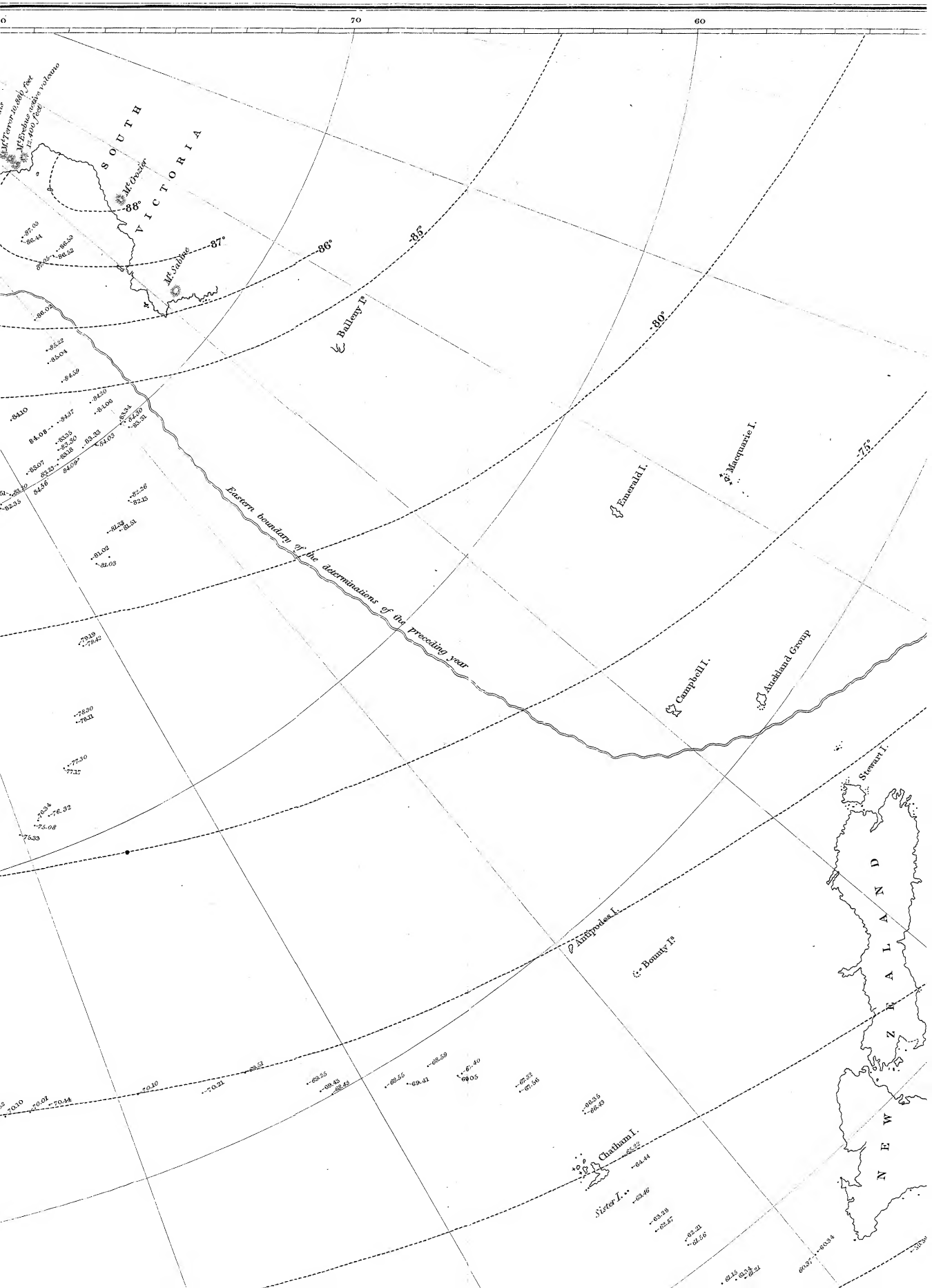
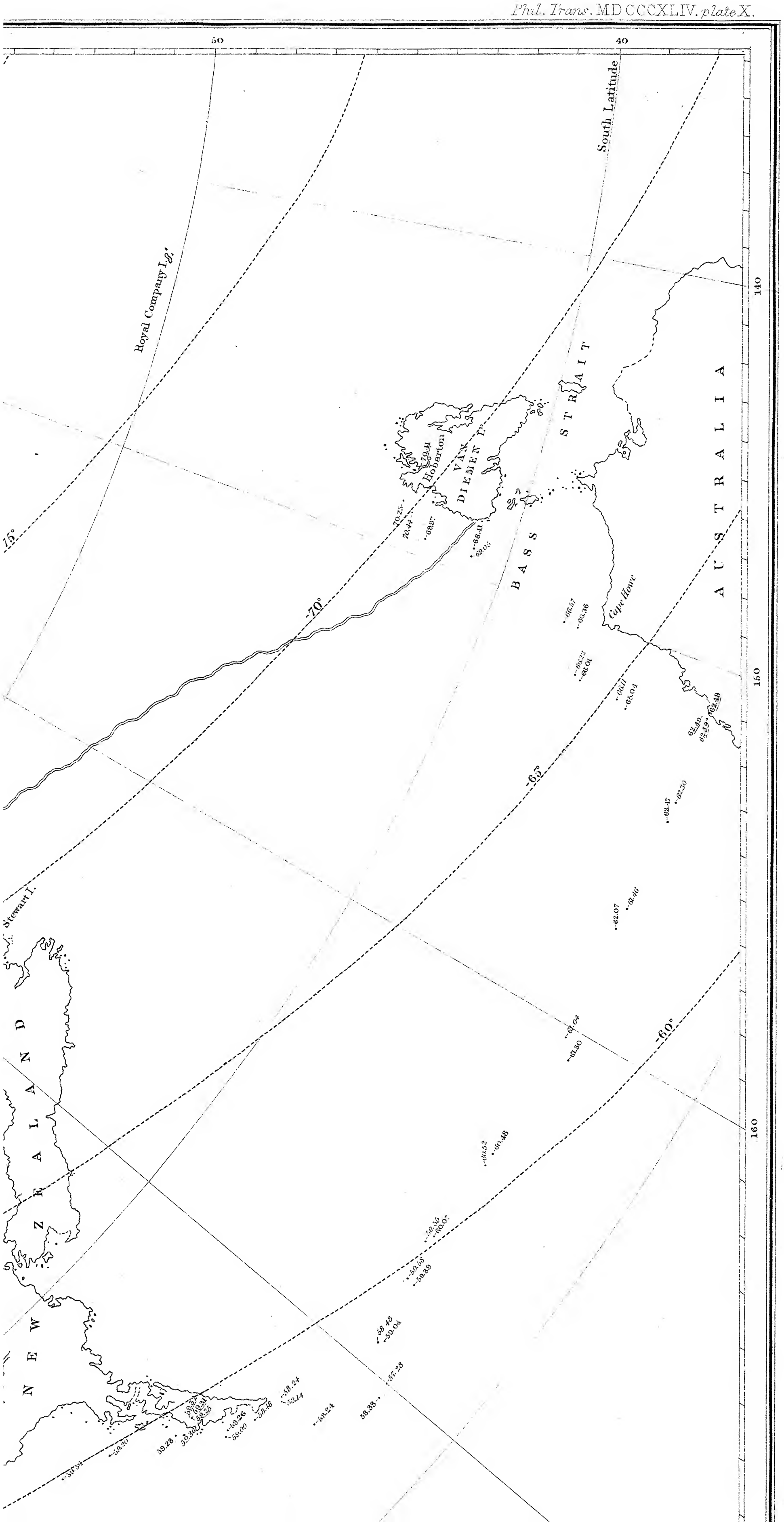
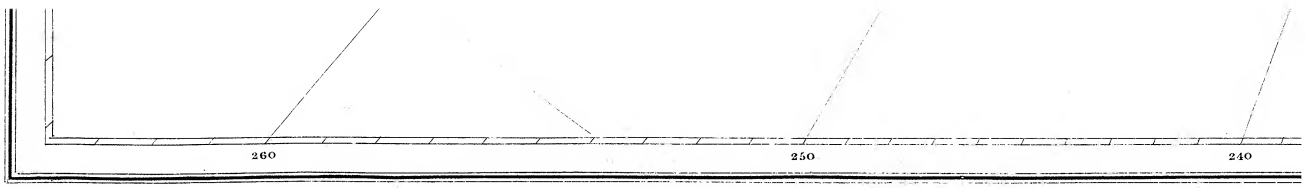
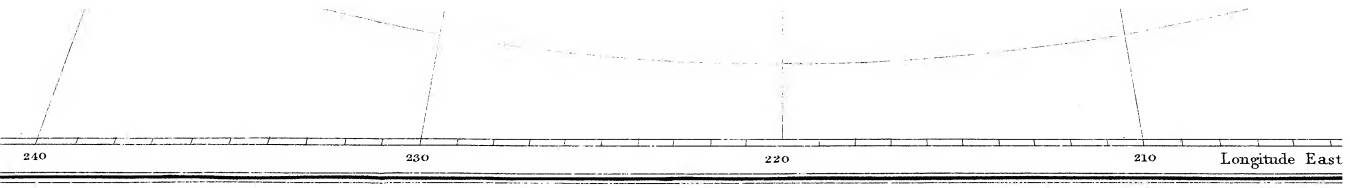
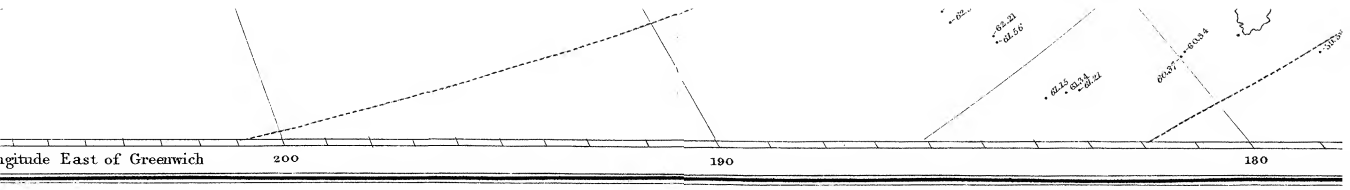

Observations of the
MAGNETIC INCLINATION
made in the Expedition commanded by
CAPT. SIR JAMES CLARK ROSS R.N.
between
May 1841. and August 1842.
The observations of the Erebus are in Roman thus_ 96.10.
The observations of the Terror are in Italics thus_ 96.10.
80
280
270
260
250
240
230
220
210
200
190
180
170
160
80
Ross Mountains
Mt Terror 10,800 feet
Mt Erebus active volcano 12,400 Feet
Perpendicular barrier of Ice
-85°
-80°
-75°
-70°


70
60
SOUTH VICTORIA
Mt Erebus 12,400 feet
Mt Discovery
Mt Sabine
88°
87°
86°
85°
80°
75°
Balleny Is
Eastern boundary of the determinations of the preceding year
Emerald I.
Macquarie I.
Campbell I.
Auckland Group
Stewart I.
Antipodes I.
Bounty Is
Chatham I.
Sister I.
NEW ZEALAND

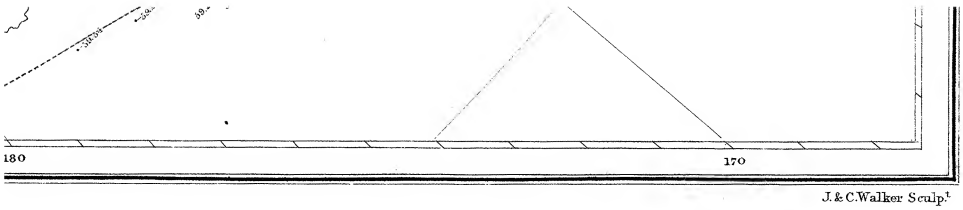

50
40
South Latitude
Royal Company Is.
140
150
160
VAN DIEMEN L.
Hobarton
BASS STRAIT
AUSTRALIA
Cape Howe
75°
70°
65°
60°
Stewart I.
NEW ZEALAND


260
250
240

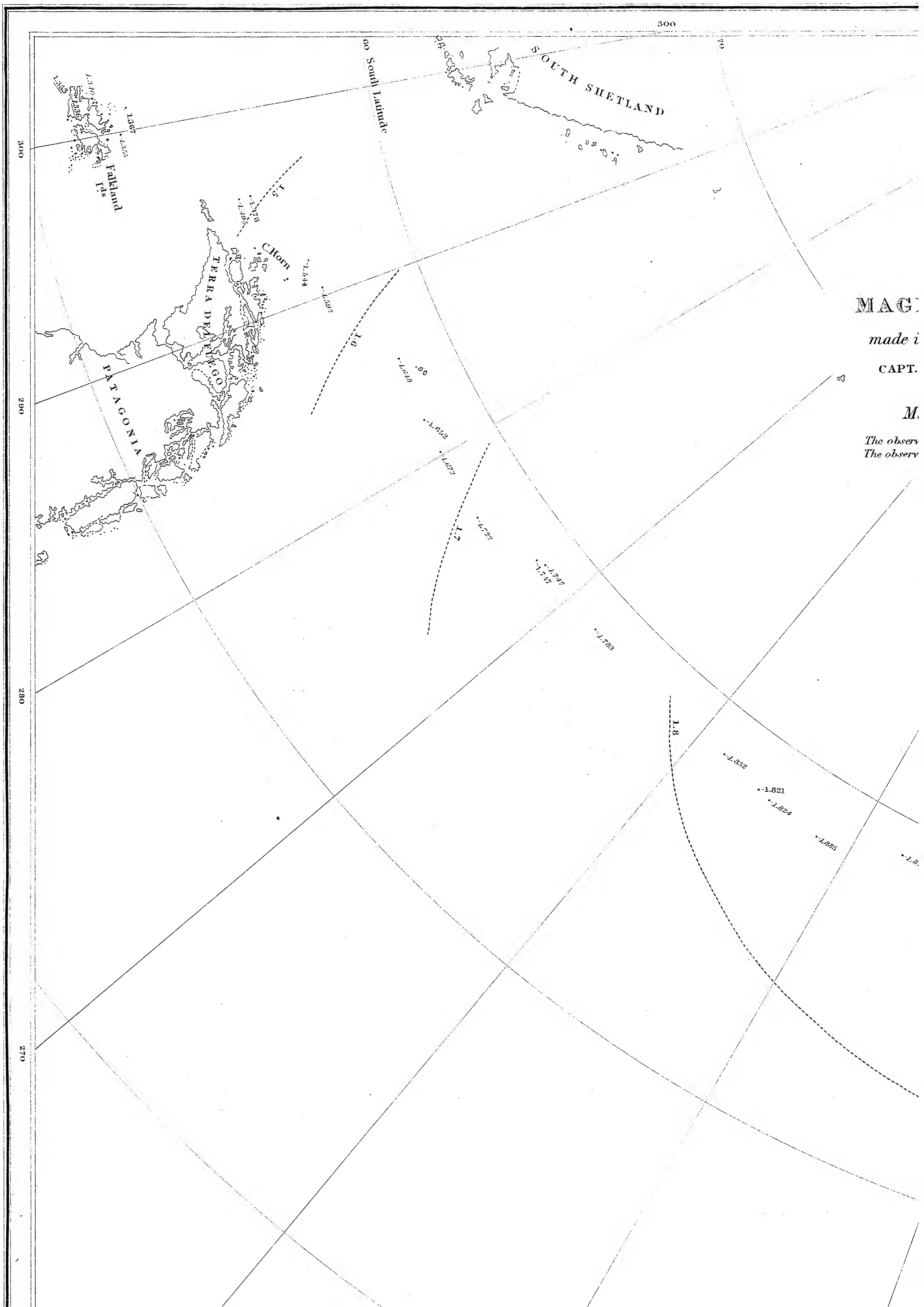

240
230
220
210
Longitude East



ngitude East of Greenwich



J. & C. Walker Sculp.t



300
60 South Latitude
70
SOUTH SHETLAND
Falkland Ids
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C.Horn
TERRA DEL FUEGO
PATAGONIA
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-1.648
-1.652
-1.672
-1.722
-1.747
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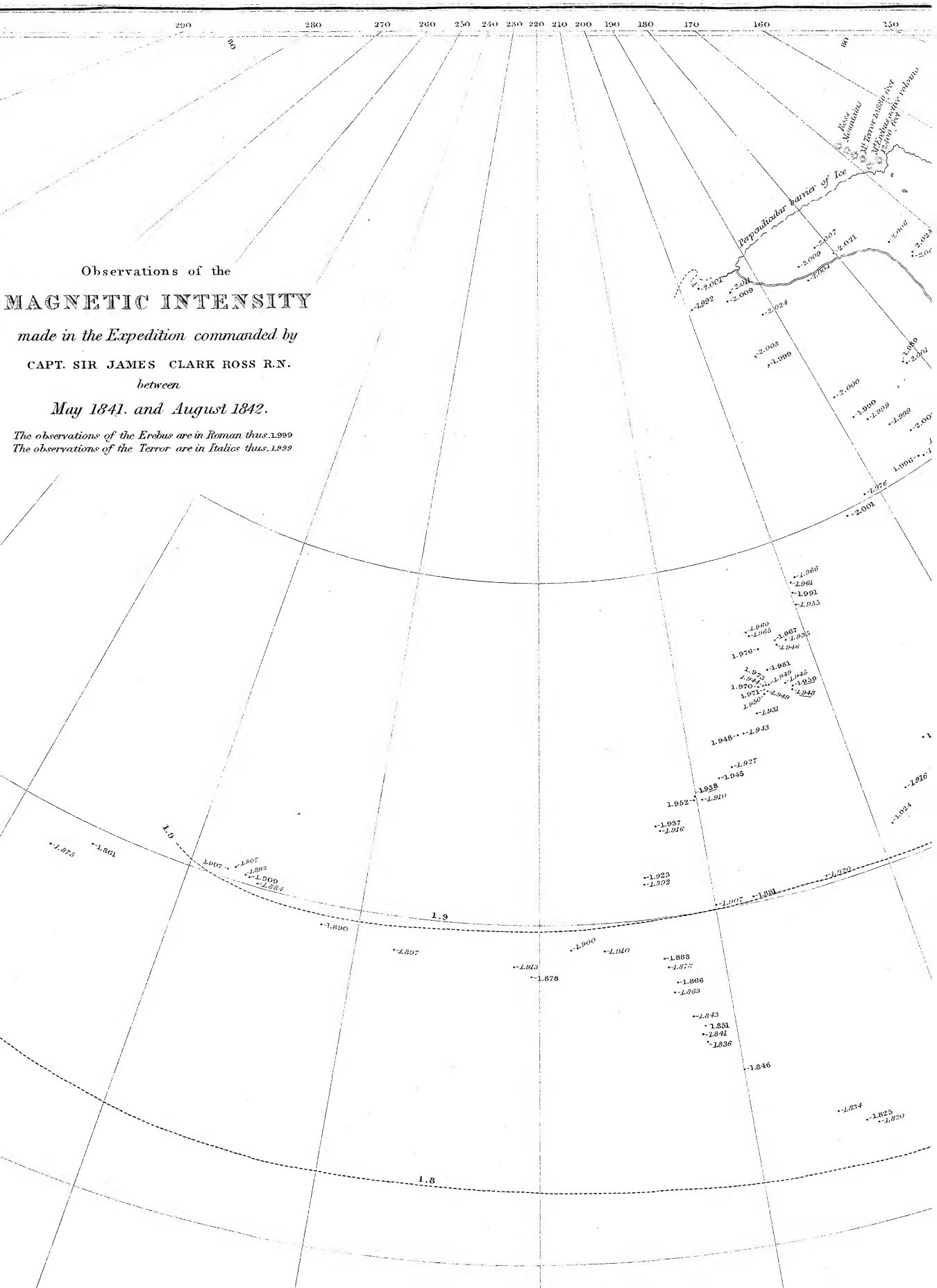
290
280
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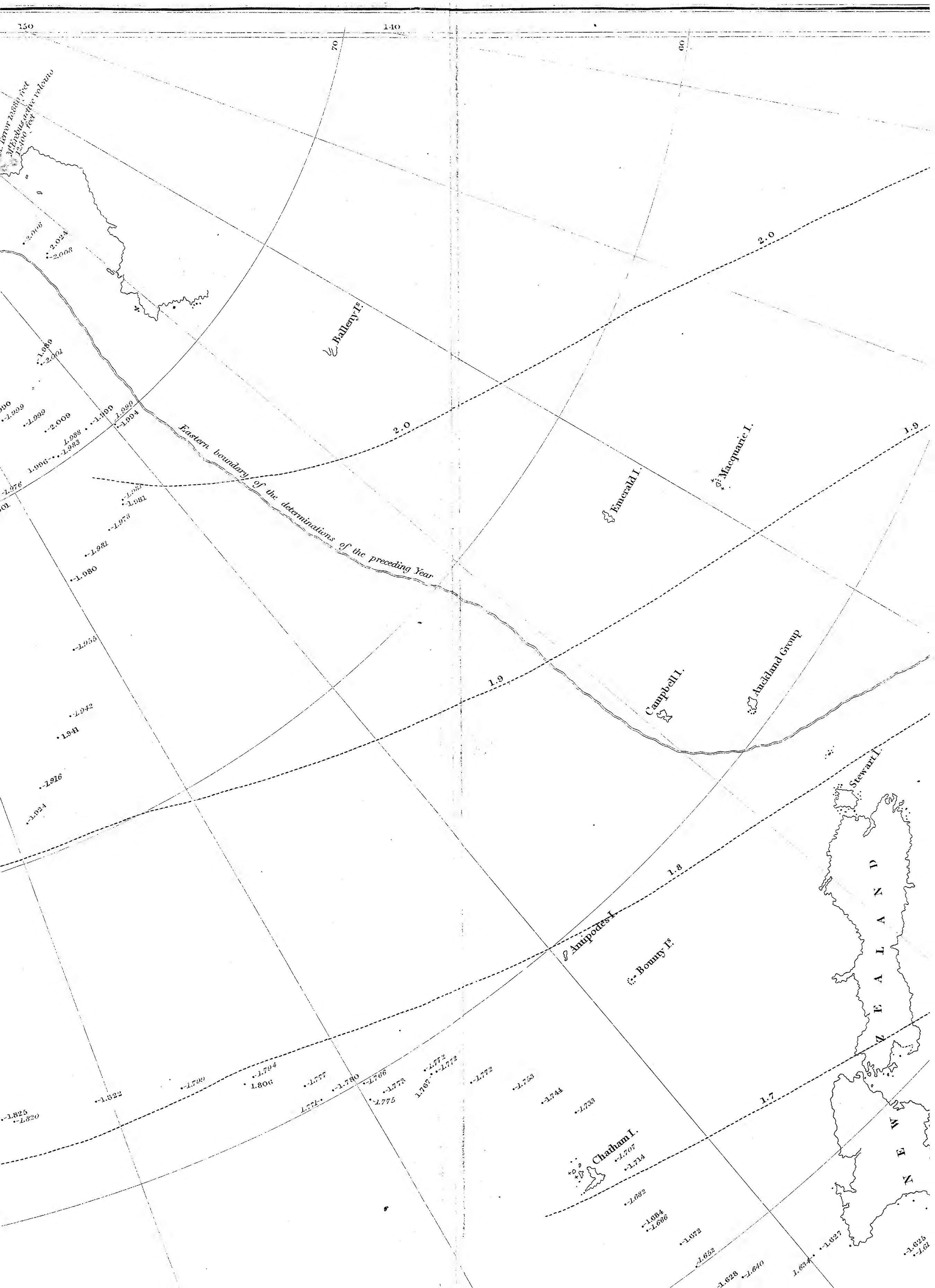
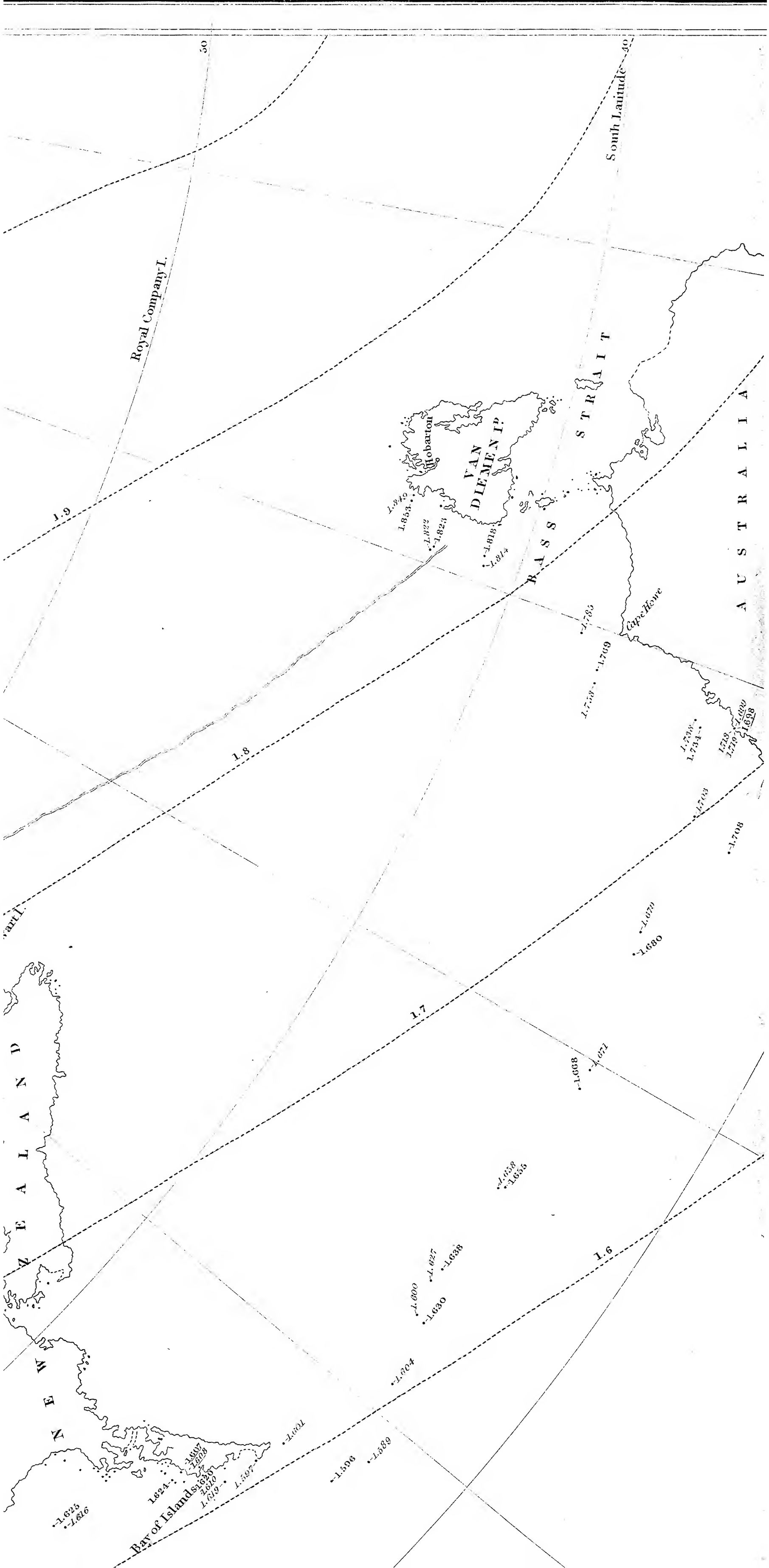
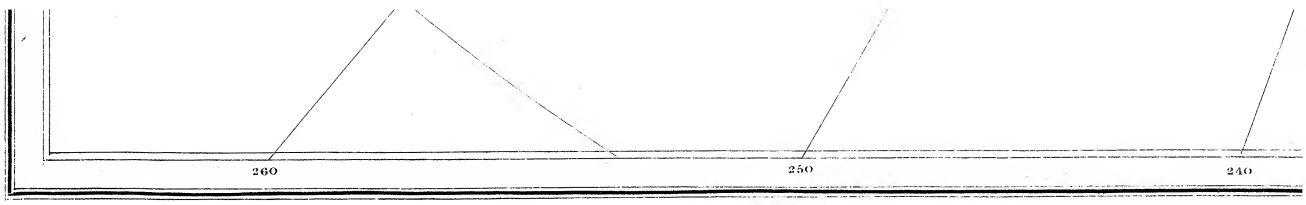
80
80
Observations of the
MAGNETIC INTENSITY
made in the Expedition commanded by
CAPT. SIR JAMES CLARK ROSS R.N.
between
May 1841. and August 1842.
The observations of the Erebus are in Roman thus 1.999
The observations of the Terror are in Italics thus 1.999
Perpendicular barrier of Ice
Rocky Mountains
Mt Terror 10,900 feet
Mt Erebus active volcano
12,400 feet
1.9
1.8

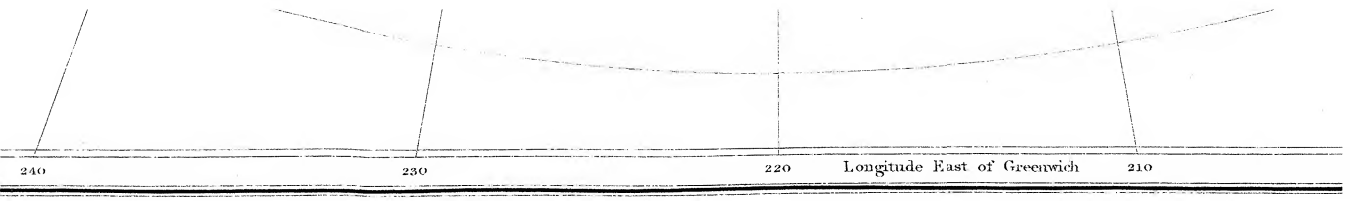


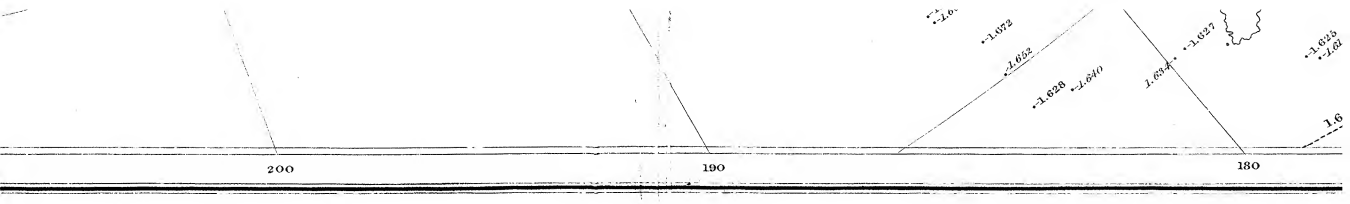
150
140
70
60
Mt. Terror 10,880 feet
Mt. Erebus active volcano 12,400 feet
Balleny Is.
Eastern boundary of the determinations of the preceding Year
2.0
1.9
1.8
1.7
Macquarie I.
Emerald I.
Campbell I.
Auckland Group
Stewart I.
Antipodes I.
Bounty Is.
Chatham I.
NEW ZEALAND



50
South Latitude 40
Royal Company I.
VAN DIEMEN
Hobarton
BASS STRAIT
AUSTRALIA
Cape Howe
NEW ZEALAND
Bay of Islands
1.9
1.8
1.7
1.6


260
250
240


240
230
220
Longitude East of Greenwich
210


1.672
1.653
1.628
1.640
1.634
1.627
1.625
200
190
180

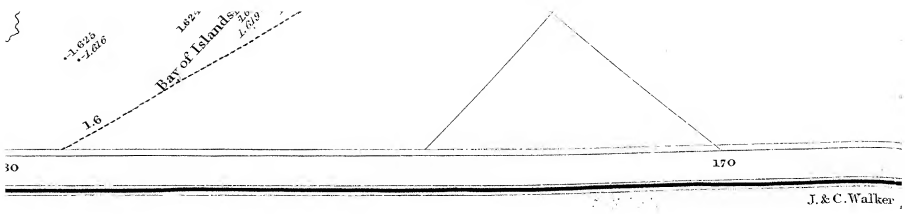
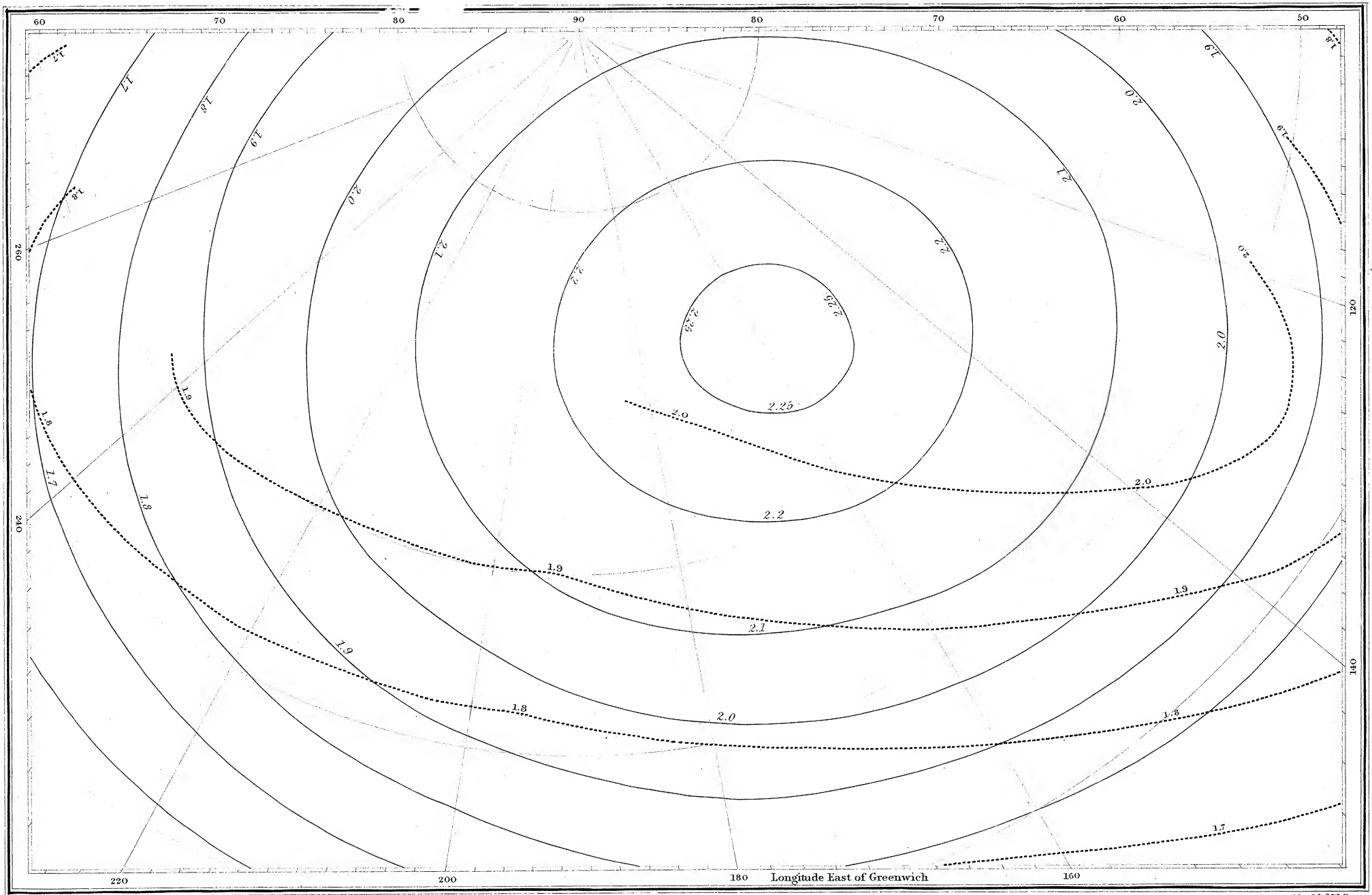

1,025
1,616
182
Bay of Islands
36
1,619
16
30
170
J. & C. Walker

PLATE SHOWING THE LINES OF EQUAL INTENSITY DEDUCED FROM THE OBSERVATIONS OF THE ANTARCTIC EXPEDITION IN COMPARISON WITH M. GAUSS'S THEORETICAL LINES.

——— *M. Gauss's theoretical Lines*

- - - - - - *Lines deduced from the Observations of the Antarctic Expedition*

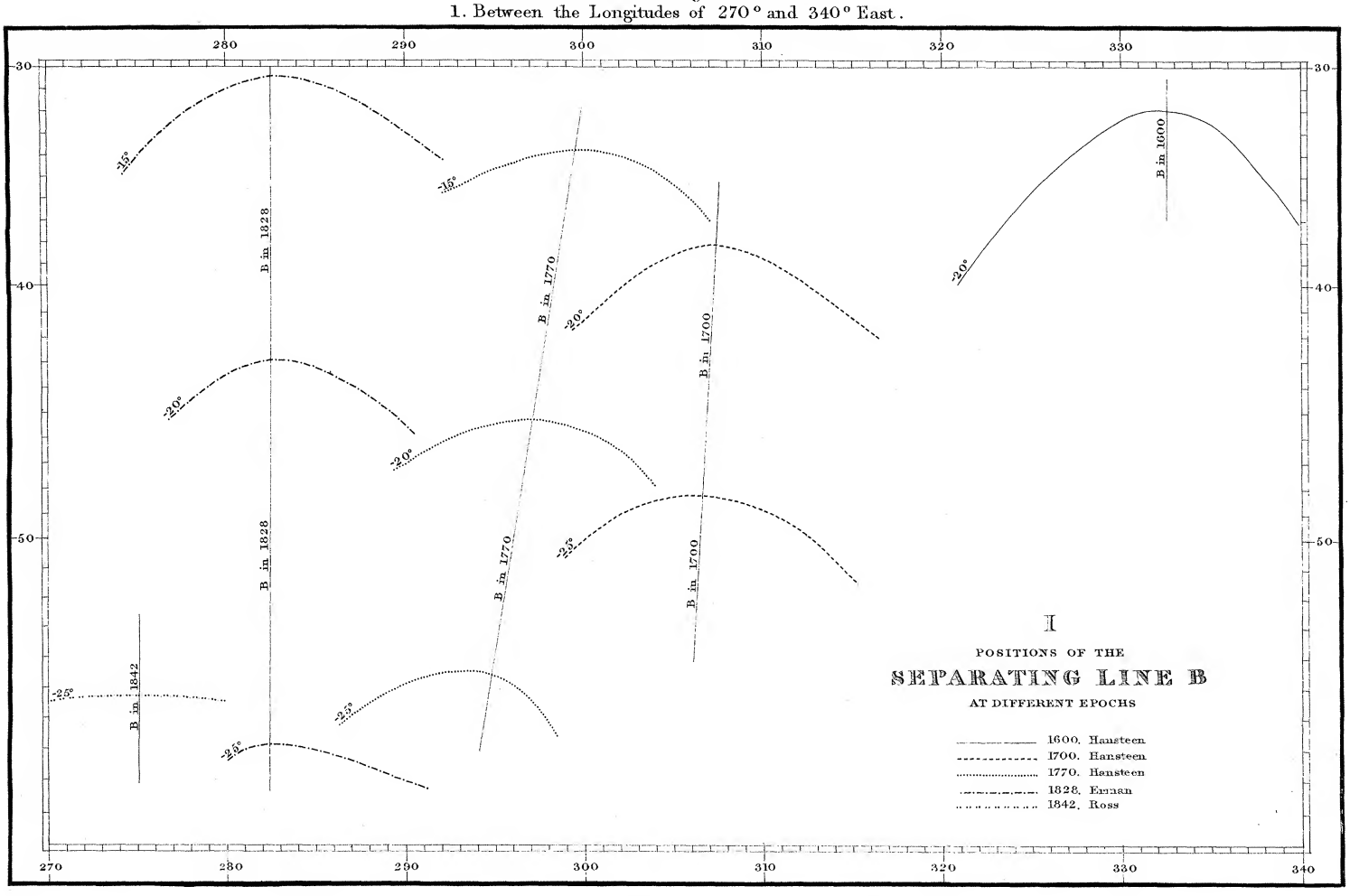
Phil. Trans. MDCCCXLIV. *Plate* XIII.



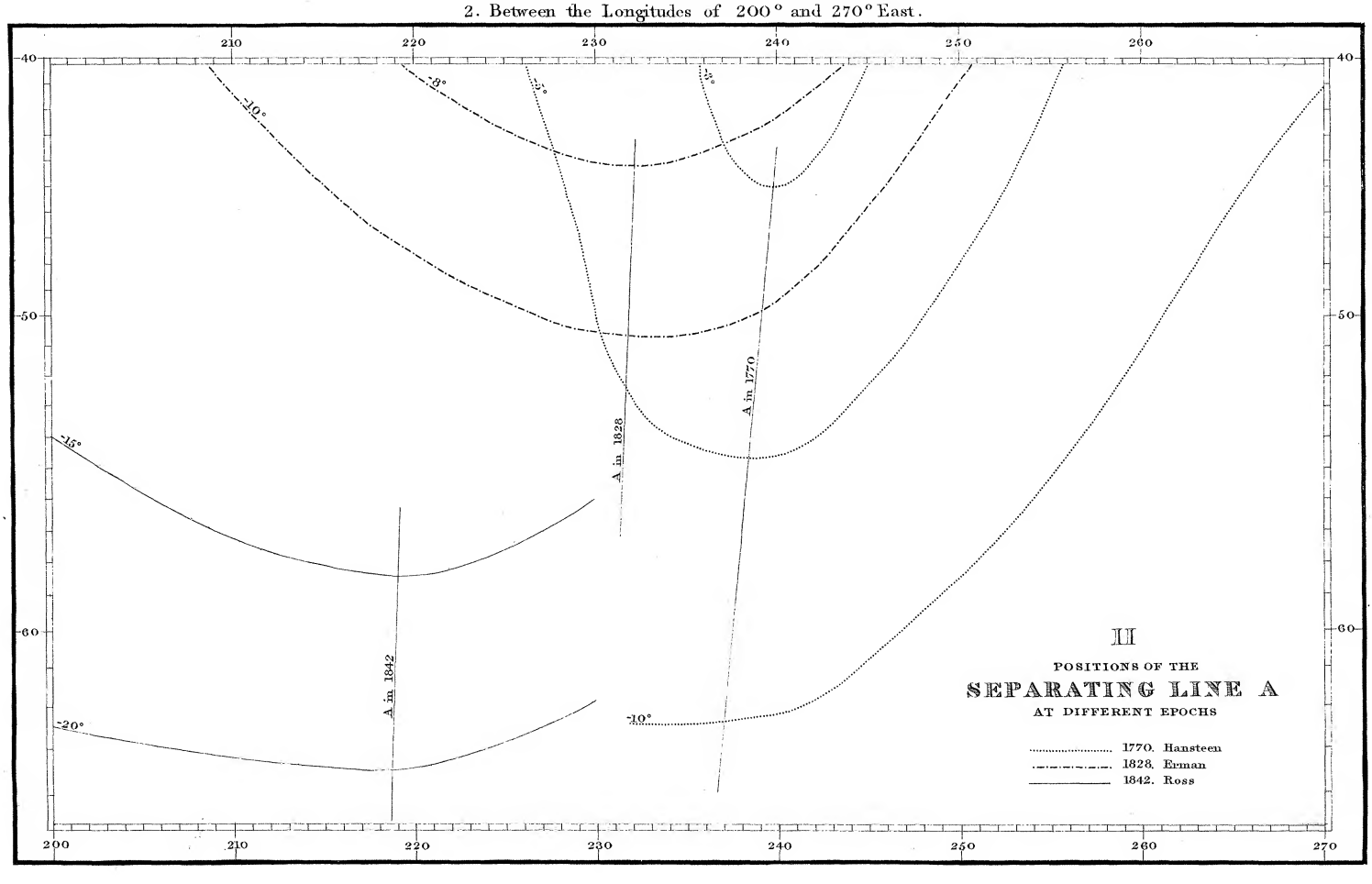
Engraved by J. & C. Walker.

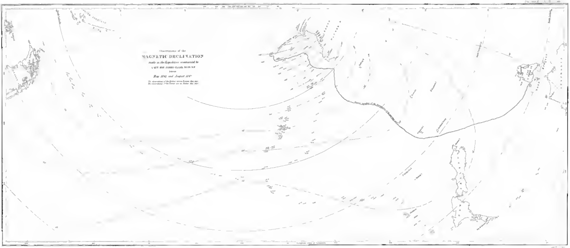
Plate, shewing the progressive westerly movement of the Magnetic Phenomena in the Southern Pacific Ocean.

1. Between the Longitudes of 270° and 340° East.



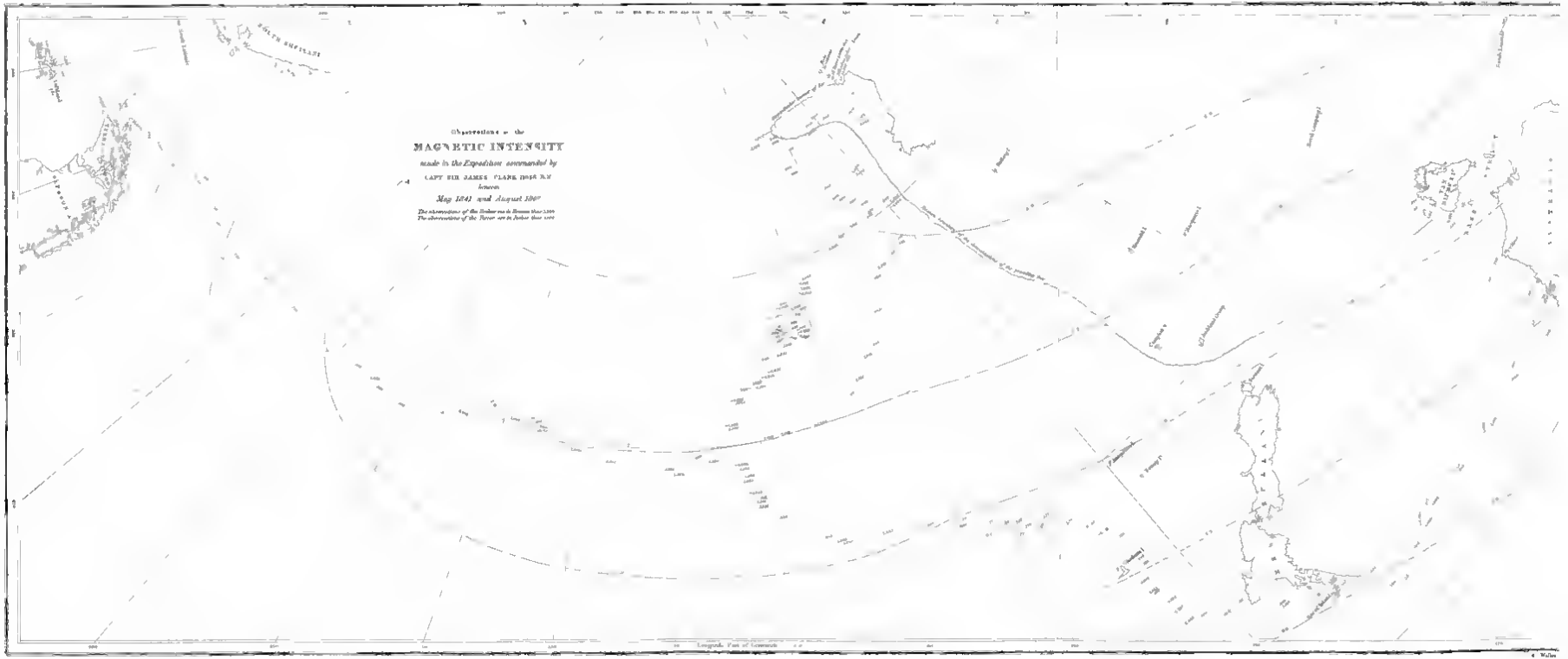
2. Between the Longitudes of 200° and 270° East.





Observations of the
MAGNETIC DECLINATION
made in the Expedition commanded by
CAPT. SIR JAMES CLARK ROSS R.N.
between
May 1841 and August 1842


Observations of the
MAGNETIC INCLINATION
made in the Expedition commanded by
CAPT SIR JAMES CLARK ROSS R.N.
between
May 1841 and August 1842
The observations of the Ordeal are in Roman thus xxx.
The observations of the Terror are in Italics thus xxx.
AUSTRALIA
Longitude East of Greenwich


Observations on the
MAGNETIC INTENSITY
made in the Expedition commanded by
CAPT SIR JAMES CLARK ROSS R.N
between
May 1841 and August 1842
The observations of the Horizontal Force are in Brown blue Lines
The observations of the Vertical Force are in Amber blue Lines
SOUTH GREENLAND
Longitude West of Greenwich